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**ST JOHN OF GOD**  
Health Care

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Owner Sylvia White:  
Clinical Pharmacist  
Area S4-Medication  
Safety-Medicine  
Guidelines  
Applicability St John of God  
Organisation

## SJGHC Medicine Guideline 33 Morphine (Intravenous Infusion)

*Our Vision - We are recognised for care that provides healing, hope and a greater sense of dignity, especially to those most in need.*

*Our Mission - To continue the healing mission of Jesus.*

### RELATED DOCUMENTS (Site Specific)

NA

### ASSOCIATED MEDICINE GUIDELINES

[SJGHC Medicine Guideline 34 Naloxone](#)

### ASSOCIATED POLICY DOCUMENTS

[MS0004 Medication Administration Policy](#)

[MS0004 0007 Administration of Restricted Schedule 4 and Schedule 8 Medications](#)

[MS0011 High Risk Medication Management Policy](#)

[MS0015 Safe and Secure Storage and Distribution of Medicines Policy](#)

[AD0002 Escalation of Care Policy](#)

# **FOR FURTHER INFORMATION REFER TO:**

MIMS Online

AUSTRALIAN INJECTABLE DRUGS HANDBOOK (where available)

AUSTRALIAN MEDICINES HANDBOOK (where available)

## **PURPOSE**

Guideline for the administration of morphine by intravenous infusion in adult patients.

## **SCOPE**

This medicine guideline applies at:

1. St John of God Health Care Hospitals

**Administration restricted to:**

1. Critical Care Areas
2. Acute Emergency Situations

Information relating to morphine Patient Controlled Analgesia (PCA) can be found in local protocols.

Medications must be administered in accordance with [MS0006 Medication Administration Scope of Practice](#) and [MS0015 Safe and Secure Storage and Distribution of Medicines Policy](#).

## **ACTIONS**

Morphine mimics endogenous opioids by activating opioid receptors in the central and peripheral nervous system. Pharmacological actions include analgesia, sedation / altered conscious state, relief of anxiety and apprehension, decreased gastrointestinal motility, respiratory depression, and reduction in body temperature.

## **PRESENTATION**

Morphine hydrochloride 10mg/1mL, 20mg/1mL, 50mg/5mL or 100mg/5mL ampoules

Morphine sulfate 5mg/mL, 10mg/mL, 15mg/mL or 30mg/mL ampoules

Morphine hydrochloride and morphine sulfate are considered equivalent.

**CONCENTRATIONS OF PREFILLED SYRINGES AND CADD CASSETTES VARY BETWEEN  
ST JOHN OF GOD HEALTH CARE HOSPITALS.**

## **CAUTION**

Morphine is contraindicated in severe CNS depression; patients with respiratory depression, bronchial asthma and obstructive airways disease.

Active/toxic metabolite accumulates in renal and hepatic impairment. Use with caution or use alternative

opioid.

Precautions include convulsive states, head injury, and in patients where maintaining a cough and gag reflex may be compromised.

Dose requirement decreases with age. Use lower dose in the elderly.

In the case of suspected overdose, cease administration of morphine, give oxygen at 6 L/minute and assist ventilation if required.

## DOSAGE

### Analgesia and sedation in critical care areas:

#### Intravenous Loading

- Initial bolus of 2 to 10 mg, given in divided doses of 0.5 to 2 mg every 3 to 5 minutes until therapeutic effect. Use lower doses in patients older than 70 years.

#### Intravenous Infusion

- Commence at 1 to 2 mg/hour and titrate infusion rate to required response to achieve a pain-free, comfortable/non-agitated patient.
- Typical infusion rate 0 to 10 mg/hour (usually 0.5 to 2 mg/hour).
  - Rate exceeding 5 mg/hour is not recommended in patients who are not ventilated.
- Intermittent bolus of 1 to 2 mg may be required until the infusion is well established, prior to procedures, or prior to care intervention where pain is anticipated.
- Check ventilator settings are appropriate if the patient's spontaneous rate is inadequate.

## ADMINISTRATION

**HIGH RISK MEDICINE - An independent double check must occur in accordance with [MS0011 High Risk Medication Management Policy](#).**

If used via PCA (Patient Controlled Analgesia), refer to local procedure.

#### Intravenous Loading

- Dilute dose in 4 to 5 mL of sodium chloride 0.9% and give over 4 to 5 minutes (or via infusion pump).
- Alternatively, dilute 10 mg/mL ampoule with 9 mL of water for injections to make a concentration of 1 mg/mL.

#### Intravenous Infusion

- Dilute 50 mg of morphine up to 50 mL with sodium chloride 0.9% (final concentration is 1 mg/mL).

Resuscitation equipment, oxygen and the narcotic antagonist (naloxone) must be readily available for

prescribing and administration.

## OBSERVATIONS

- Continuous cardiac monitoring.
- Heart rate, blood pressure, respiratory rate, oxygen saturation – monitor continuously and document hourly.
- Hourly sedation score / Glasgow coma score.
- Pain score if appropriate.

## COMPATIBILITIES

Compatible fluids: glucose 5%, sodium chloride 0.9%, glucose 4%/sodium chloride 0.18%, Hartmann's solution, Ringer's solution.

Morphine is preferably administered via a dedicated line. However it is compatible with many drugs provided a Y site/2 way tap close to the patient is utilised.

## IMPORTANT DRUG INTERACTIONS

Use with caution in combination with other CNS depressants or medications that cause hypotension.

## IMPORTANT ADVERSE EFFECTS

Patient's clinical condition deteriorates, stop infusion and escalate care in accordance with [AD0002 Escalation of Care Policy](#).

- Respiratory depression
- Hypotension, bradycardia, flushing, dizziness
- Apnoea
- Sedation, euphoria, nightmares, hallucinations
- Urinary retention
- Constipation, ileus, nausea and vomiting
- Pruritus

## ADDITIONAL INFORMATION

N/A

## AUTHORITY

Australian Medicines Handbook. (2023). Morphine. In *Australian Medicines Handbook* (online). Retrieved 16 March 2023 from <https://amhonline.amh.net.au>

MIMS Australia. (2022). Morphine. In *MIMS Online*. Retrieved 15 March 2023, from

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Pandharipande P, & Hayhurst C. (2023) Pain control in the critically ill adult patient. *UpToDate*. Retrieved 15 March 2023 from [www.uptodate.com](http://www.uptodate.com)

The Society of Hospital Pharmacists of Australia. (2023). Morphine. In *Australian Injectable Drugs Handbook*. Retrieved 15 March 2023, from <https://aidh.hcn.com.au>

WACHS South West, Bunbury Hospital. (2018). Intravenous Infusion for Common Drugs in the Intensive Care Unit Guideline. Retrieved 2 March 2023 from [Intravenous Infusion Orders for Common Drugs in the Intensive Care Unit Guideline – Bunbury Hospital \(health.wa.gov.au\)](https://www.health.wa.gov.au/Intravenous-Infusion-Orders-for-Common-Drugs-in-the-Intensive-Care-Unit-Guideline-Bunbury-Hospital)

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## Approval Signatures

Step Description	Approver	Date
Policy Governance Approver	Joanna Gurak: Coordinator Clinical Policy & Documentation	May 2024
Clinical Governance Approver	Luis Prado: Chief Medical Officer	Apr 2024
Medicine Guideline Owners	Sylvia White: Clinical Pharmacist	Jan 2024

## Applicability

Accord, Ballarat Hospital, Bendigo Hospital, Berwick Hospital, Bunbury Hospital, Frankston Hospital, Geelong Hospital, Geraldton Hospital, Group Services, Hauora Trust, Hawkesbury District Health Service, Healthcare at Home, Langmore Centre, Marillac, Midland Public and Private Hospitals, Mt Lawley Hospital, Murdoch Hospital, SJG Foundation, SJG NSW Mental Health, Social Outreach (Australia and Timor-Leste), St John of God Administration, Subiaco Hospital, Warrnambool Hospital