Drug Therapy Protocols:
Morphine and midazolam (combined)

Policy code	DTP_MOMI_0722
Date	July, 2022
Purpose	To ensure a consistent procedural approach to morphine and midazolam (combined) administration.
Scope	Applies to all Queensland Ambulance Service (QAS) clinical staff.
Health care setting	Pre-hospital assessment and treatment.
Population	Applies to all ages unless specifically mentioned.
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Morphine and midazolam (combined)

July, 2022

Drug class[1,2]

- Narcotic analgesic
- Benzodiazepine

Pharmacology

Morphine is a narcotic analgesic altering the perception and emotional response to pain. Midazolam is a CNS depressant that induces amnesia, anaesthesia and sedation. In addition to these individual properties, the combination provides synergistic sedative effects.[1,2]

Metabolism

Hepatic metabolism, renal excretion.[1]

Indications

- **Sedation for the maintenance of an established ETT/SAD** (when transport is longer than 30 minutes)

Contraindications

- Allergy AND/OR Adverse Drug Reaction
- Kidney disease (renal failure)

Precautions

- Haemodynamic instability
- Reduced dosages must be considered in low body weight, older or frail patients
- Excessive sedation may impair neurological assessment at the receiving medical facility
- Accumulation of active metabolites

Side effects[1,2]

- Hypotension
- Respiratory depression

Presentation

- Ampoule, 10 mg/1 mL *morphine*
- Ampoule, 5 mg/1 mL *midazolam*

Onset	Duration	Half-life
< 5 minutes	Several hours	≈ 2 hours

Morphine and Mizadolam (combined)

Schedule

- Morphine – S8 (Controlled drugs).
- Midazolam – S4 (Restricted drugs).

Routes of administration

Intravenous infusion (IV INF) CCP

Special notes

- Ambulance officers must only administer medications for the listed indications and dosing range. Any considerations for treatment outside the listed scope of practice requires mandatory approval via the *QAS Clinical Consultation and Advice Line*.
- Morphine & midazolam infusions must be administered through a dedicated line.
- Patients on morphine & midazolam infusions must have their NIBP measured regularly (every 5 mins at a minimum).
- The optimal sedation target is a patient who is not responsive to simple stimuli (e.g. gentle patient movement) however will respond to painful stimuli.
- NIBP cuffs must not be placed on limbs with infusions to ensure flow is not obstructed.

Adult dosages[1–5]

Sedation for the maintenance of an established ETT/SAD
(when transport is longer than 30 minutes)

CCP	IV/IO INF	Commence infusion at **5 mg morphine: 5 mg midazolam/hour (5 mL/hr)** – titrate according to indication and patient's physiological response to treatment. Consider PRN use of the bolus function if clinically appropriate. ***Infusion preparation:*** *Mix 20 mg morphine (2 mL) with 20 mg midazolam (4 mL) with 14 mL of sodium chloride 0.9% in a 20 mL syringe to achieve a final concentration of 20 mg morphine: 20 mg midazolam in 20 mL. Ensure syringe is appropriately labelled. Administer infusion via Perfusor® Space Medication Library (Morph 20/Midaz 20-Adult).*

Paediatric dosages[1–4, 6]

Sedation for the maintenance of an established ETT/SAD
(when transport is longer than 30 minutes)

CCP	IV/IO INF	*QAS Clinical Consultation and Advice Line* consultation and approval required in all situations. ***Infusion preparation:*** *Mix 20 mg morphine (2 mL) with 20 mg midazolam (4 mL) with 14 mL of sodium chloride 0.9% in a 20 mL syringe to achieve a final concentration of 20 mg morphine: 20 mg midazolam in 20 mL. Ensure syringe is appropriately labelled. Administer infusion via Perfusor® Space Medication Library (Morph 20/Midaz 20-Paed).*