

Hyoscine N-BUTYLbromide (Buscopan) Subcutaneous - Palliative Care



These guidelines are for use in the context of Palliative Care ONLY.

Multiple products exist – Please ensure you have the correct Hyoscine preparation. Note that Hyoscine **HYDRO**bromide has similar properties and indications.

Presentation

Hyoscine N-BUTYLbromide (Buscopan®) 20mg/ml ampoules.

Indications

Licensed: Smooth muscle spasm of the gastro-intestinal tract (intestinal colic).¹

Unlicensed: Chest secretions in end-of-life, sialorrhoea (drooling), genitourinary colic, inoperable

bowel obstruction.²

In the palliative care setting, the short term benefit of using Hyoscine N-Butylbromide for colic pain or chest secretions often outweighs the risk or consequence of adverse effects, unless the side effects of this medication increase the patient's distress or discomfort.

Mechanism of Action

Hyoscine N-BUTYLbromide is an anti-muscarinic agent with smooth muscle relaxant and anti-secretory properties. It does not cross the blood brain-barrier.²

Dose

| As needed (PRN) | 20mg subcutaneously (subcut) q2hr – up to a maximum of 120mg/24hr. ² |
|--|--|
| Continuous SC Infusion via Syringe Driver | Bowel obstruction with painful colic: 20mg subcut stat then 60mg/24hr via continuous subcutaneous infusion (CSCI). |
| | Chest secretions (in end-of-life): 20mg subcut stat, followed by 20mg subcut q2hr prn and/or 40-80mg/24hr via continuous subcutaneous infusion (CSCI). |
| | Up to a total of 120mg/24hr (including prn doses) can be used ² |
| | (<u>see Te Whatu Ora – Waitematā staff information sheet – Respiratory Tract</u> <u>Secretions in the Last Days of Life</u>) |

This medication is licensed to a maximum of 100mg/24hr in New Zealand but can be used in higher doses (up to 120mg/24hr). Seek advice from the Palliative Care Team if intending to use higher doses.

Diluent

- For subcutaneous bolus administration Hyoscine N-BUTYLbromide does not need to be diluted.³
- When added to a syringe driver the recommended diluent is water for injection.²

Storage

Hyoscine N-BUTYLbromide diluted in water for injection is stable at room temperature (below 25°C) for up to 24 hours. Protect from light.3

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Additional Equipment

- Subcutaneous Saf-T-Intima single lumen [ADM140] (See <u>Te Whatu Ora Waitematā policy Palliative</u> <u>Care Subcutaneous Site Selection and Insertion of BD Saf –T- Intima Cannula</u>).
- Continuous subcutaneous infusion pump (CSCI), Niki T34 or equivalent if required.

Compatibility

- Water for injection, 0.9% sodium chloride.³
- Morphine sulphate, haloperidol, levomepromazine, midazolam, metoclopramide, clonazepam, octreotide, fentanyl, oxycodone, dexamethasone.²
- Concentration dependent incompatibility with cyclizine.²



AVOID hyoscine N-BUTYLBROMIDE and **cyclizine** combination unless advised otherwise by the Palliative Care team.

Administration

- Inject through a Saf-T-Intima or directly by a subcutaneous needle (if Saf-T-Intima not in place).
- After administration, flush the Saf-T-intima with 0.2ml of water for injection.
- Can be administered via a continuous subcutaneous infusion pump (Niki T34 or equivalent).

Observation and Monitoring

Monitor for dry mouth, urinary retention and constipation.³

Drug Interactions

- Anticholinergic agents
- Antihistamines
- Monoamine oxidase inhibitors
- Tricyclic antidepressants
- Competitively blocks prokinetic agents (i.e. metoclopramide, domperidone)
- Beta-adrenergic agents (may enhance tachycardia)¹

Contraindications and Precautions

Contraindications

- Narrow-angle glaucoma (unless moribund)
- Myasthenia Gravis
- Hypersensitivity to hyoscine N-butylbromide
- Toxic megacolon
- Prostatic hypertrophy with urinary retention
- Mechanical gastrointestinal stenosis
- Tachycardia¹

Precautions

- Elderly
- Urinary retention
- Hypertension
- Cardiovascular disease¹

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Adverse Effects

- Dry mouth
- Dizziness
- Hypotension
- Blurred vision
- Urinary retention
- Constipation
- Tachycardia¹

References

| 1 | Medsafe Website – <u>Buscopan Datasheet.</u> http://www.medsafe.govt.nz/profs/Datasheet/b/Buscopantabinj.pdf |
|---|--|
| 2 | Twycross R, Wilcock A (eds). Palliative Care Formulary 6 th edition. www.palliativedrugs.com Ltd. 2018 |
| 3 | McClintock A, (ed) Notes on Injectable Drugs 7 th Edition 2015. New Zealand Hospital Pharmacists' Association Wellington, NZ. |
| 4 | Back I (eds). Palliative Medicine Handbook (Online Edition). BPM Books, Cardiff, UK. (http://book.pallcare.info/) |

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