Haloperidol – Palliative Care

Contents

1. Overview

These guidelines are for use in palliative care only

2. Presentation

- Haloperidol 5mg/mL, 1mL ampoules
- Haloperidol 0.5mg, 1.5mg and 5mg tablets
- Haloperidol oral solution 2mg/mL

3. Indication

Licensed	Hallucinations, schizophrenia, delusions, delirium
Unlicensed	• Haloperidol has been routinely administered subcutaneously in New Zealand particularly in palliative care but this is not a licensed route • Nausea and vomiting, intractable hiccups

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4. Dose

Note: These guidelines recommend a conversion ratio of 1:1 for oral to subcutaneous dosing as small doses are usually being used. Other sources may recommend different oral to parenteral conversion ratios. Caution should be used when changing patients from oral to parenteral doses.

Indication	Regular and PRN doses	Initial subcutaneous infusion rate per 24hrs	Dose range over 24hrs
Antiemetic	**Regular:** 0.5mg – 1.5mg nocte **PRN:** 0.5 – 1 mg prn q4–6 hourly (maximum 5 mg in 24 hours)	1 – 3mg	0.5-3mg (up to 10mg, although more than 5mg/24hours is seldom needed for nausea)
Delirium	**Regular:** 0.5mg – 1.5mg nocte **PRN:** 0.5mg – 1mg q2h PRN (maximum 5mg in 24 hours)	2 – 5mg	1 – 5mg (titrate to effect up to 20mg orally or 15mg subcut, although such high doses are rarely used)
Hiccups	1.5mg TDS	1-3mg	1 – 3mg

5. Diluent

- For subcutaneous bolus administration haloperidol does not need to be diluted
- When haloperidol is added to a syringe driver the recommended diluent is water for injection

6. Additional Equipment

- Subcutaneous Saf-T-Intima single lumen [ADM140] (*refer WDHB Policy Palliative Care- Subcut Site Selection and Insertion of BD Saf-T-Intima*)
- Continuous subcutaneous infusion pump (Niki T-34) if required

7. Compatibility

Compatible With:

Water for injection, 0.9% sodium chloride, morphine sulfate, clonazepam, cyclizine, glycopyrrolate, ketamine, metoclopramide, hyoscine hydrobromide, midazolam, octreotide, fentanyl, oxycodone, methadone

Dose-Dependent Incompatibility:

Hyoscine butylbromide but compatible at usual doses

Concentration Dependent Incompatibility:

Dexamethasone - may be compatible at small doses. Consult palliative care or pharmacy for advice

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8. Administration

- Can be injected directly via a subcut needle or through a Saf-T-Intima which has already been placed
- The Saf-T-Intima should be flushed with 0.2ml of water for injection after administration
- Can be administered via a continuous subcutaneous pump (Niki T-34)

9. Observations and Monitoring

- Monitor for extrapyramidal symptoms (tremor, slurred speech, abnormal muscle tone)
- Akathisia (restlessness, feeling of inner restlessness)
- Excessive sedation
- Postural hypotension

10. Mechanism of Action

Haloperidol is a typical anti-psychotic. It is a specific dopamine (D2) - receptor antagonist and therefore it has a profound inhibitory effect on the chemoreceptor trigger zone (CTZ) making it a potent antiemetic for most causes of CTZ induced vomiting, e.g. medications such as morphine, renal or liver failure, sepsis, hypercalcaemia.

11. Contraindications and Precautions

Contraindications

- Parkinson's disease
- Known hypersensitivity to haloperidol
- Significant cardiac disorders (i.e. ventricular arrhythmia, 2nd or 3rd degree heart block, decompensated heart failure)

Precautions

- Tardive dyskinesia
- QT prolongation and Torsades de Pointes
- Epilepsy
- Glaucoma
- Urinary Retention
- Hyperthyroidism
- Hepatic impairment
- History of stroke
- Hepatic encephalopathy
- Elderly or debilitated patients

12. Possible Adverse Effects

- Extrapyramidal reactions
- Neuroleptic malignant syndrome
- Akathisia
- Cardiovascular – e.g. postural hypotension, tachycardia, arrhythmias, QT prolongation
- Anticholinergic – e.g. constipation, urinary retention

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13.Drug Interactions

- Increased clinical effect/toxicity of haloperidol (due to increased plasma levels) may occur with some CYP450 metabolising enzyme inhibitors e.g. fluconazole, itraconazole, fluoxetine, venlafaxine, promethazine
- Decreased clinical effect/toxicity of haloperidol (due to decreased plasma levels) may occur with some CYP450 metabolising inducers e.g. phenytoin, carbamazepine, rifampicin
- Additive CNS effects with other CNS depressants
- Caution with medications that prolong the QT interval i.e. amiodarone, sotalol, moxifloxacin, erythromycin, tricyclic antidepressants, methadone

14.References & Associated Documents

1	Medsafe Website – Haloperidol Datasheet. http://www.medsafe.govt.nz/profs/Datasheet/s/Serenacetaboralsolninj.pdf
2	Sutherland J, (ed) Notes on Injectable Drugs 7th Edition 2015. New Zealand Healthcare Pharmacists' Association Wellington, NZ.
3	MacLeod A, Vella-Brincat J. Nurse Maude Palliative Care Formulary. Palliative Care Handbook, 5th Edition 2011.
4	Twycross R, Wilcock A (eds). Palliative Care Formulary 5th edition. Palliativedrugs.com Ltd.
5	Smith, S. Compatibility of syringe driver admixtures for continuous subcutaneous infusion, Pharmacy Department Auckland Hospital 2002.
6	Back I (eds). Palliative Medicine Handbook (Online Edition). BPM Books, Cardiff, UK. (http://book.pallcare.info/).
7	Martin J, Mehta,D (eds) British National Formulary 57 September 2009 BMJ Publishing Group Tavistock Square, London UK and RPS Publishing 1 Lambeth High Street, London UK.
8	Twycross R, Wilcock A (eds). Palliative Care Formulary 4th edition. Palliativedrugs.com Ltd. Adapted by Dr Cathy Miller for use at WDHB