

Levomepromazine (Methotrimeprazine/Nozinan®) Palliative Care

1 Overview

Presentation

- Levomepromazine/Methotrimeprazine (Nozinan®) 25mg/mL (1mL ampoules)
- Levomepromazine/Methotrimeprazine (Nozinan®) 25mg and 100mg tablets

Indications for Use

Licensed	Terminal pain and accompanying restlessness, anxiety or distress, acute psychotic symptoms, schizophrenia ¹
Unlicensed	Nausea and vomiting, delirium. ^{2,3}



This medication can cause excessive sedation in some patients even at low.

Scope

These guidelines are for use in Palliative Care only

2 Administration Information

2.1 Administration

Dose

The oral bioavailability of levomepromazine is approximately 20 - 40%.²

The conversion ratio for oral (PO) to subcutaneous (Subcut) doses varies in clinical use from centre to centre. We recommend the use of a conversion ratio of **1:1**² as generally small doses are being used.

A low dose should be started and titrated upwards depending on individual response and sensitivity

Indication	Stat and initial PRN oral / Subcut	Oral dose range per 24 hours (in divided doses)	Subcut dose range per 24 hours (in divided doses or continuous subcutaneous infusion)
Antiemetic ⁶	6.25mg PO / Subcut nocte and PRN q4- 6 hourly (maximum 25 mg in 24 hours)	6.25 – 25mg It is seldom necessary to use more than 25 mg /24 hours for antiemetic purposes. Consider alternative antiemetics if 25 mg/24 hours is ineffective	6.25 – 25mg It is seldom necessary to use more than 25 mg /24 hours for antiemetic purposes. Consider alternative antiemetics if 25 mg/24 hours is ineffective
Terminal agitation ⁶	6.25mg PO/subcut stat and q1hr PRN.	12.5 – 100mg (Usually given subcut)	12.5 – 100mg

Note: In New Zealand the subcutaneous route is licensed to 200mg/24hours, and the oral route is licensed to a usual dose of 100-300mg (up to 1g daily in non-ambulant patients).¹ It is uncommon to need >300mg/24 hours.²

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Compatibility	<p>Compatible with:</p> <ul style="list-style-type: none"> Sodium chloride 0.9%, morphine sulfate, octreotide, methadone, metoclopramide. Morphine tartrate, hyoscine hydrobromide, hyoscine N-butylbromide, haloperidol, ketamine, ondansetron, glycopyrrolate midazolam, clonazepam, fentanyl, octreotide, oxycodone, cyclizine^{3,5} <p>Dose-dependent incompatibility with: Dexamethasone³</p>
Diluent	For subcutaneous bolus administration levomepromazine does not need to be diluted. When added to a syringe driver the recommended diluent is sodium chloride 0.9% . ⁴
Additional equipment	<ul style="list-style-type: none"> Subcutaneous Saf-T-Intima single lumen [ADM140] (<i>refer WDHB Policy Palliative Care- Subcut Site Selection and Insertion of BD Saf-T-Intima</i>) Continuous subcutaneous infusion pump (Niki T-34) if required

Administering Procedure

- Should be injected through a Saf-T-Intima or directly via subcutaneous needle.
- The Saf-T-Intima should be flushed with 0.2ml of normal **saline (0.9% sodium chloride)** after administration of medication.
- Can be administered via a continuous subcutaneous infusion pump (Niki T-34).

Observations and Monitoring

- Monitor for excessive drowsiness.⁴
- The injectable preparation contains sodium sulfite and may cause allergic reactions including asthma and anaphylaxis.⁴
- May need to monitor for postural hypotension in ambulant patients¹
- May cause irritation at the injection site.

Mechanism of Action

Levomepromazine is a neuroleptic agent. It has analgesic, anti-emetic, anti-histamine, anti-adrenergic and potent sedative activity. Its precise mechanism of action is unknown.¹

2.2 Contraindications and Precautions

Contraindications

- Hypersensitivity to levomepromazine

Precautions

- Parkinsonism
- Postural hypotension
- Epilepsy
- Hypothyroidism
- Myasthenia Gravis
- Liver dysfunction
- Cardiac disease
- Dementia^{1,2}

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2.3 Possible Adverse Effects

- Hypotension
- Drowsiness
- Disorientation / Confusion
- Somnolence
- QT interval prolongation (rare)
- Dry mouth
- Photosensitivity
- Allergic skin reactions
- Parkinsonism-like reactions
- Ventricular arrhythmias
- Torsades de pointes^{1,2}

2.4 Drug Interactions

Levomepromazine will enhance the activity of any sedative or hypnotic.¹

3 References

1	Medsafe Website – Nozinan Datasheet. http://www.medsafe.govt.nz/profs/datasheet/n/Nozinan.htm
2	Twycross R, Wilcock A (eds). Palliative Care Formulary 4th edition 2011. Palliativedrugs.com Ltd. Nottingham, UK
3	MacLeod R, Vella-Brincat J, Macleod S. Nurse Maude The Palliative Care Handbook. 5 th Edition 2011. The Caxton Press
4	McClintock A, (ed) Notes on Injectable Drugs 6 th Edition 2010. New Zealand Hospital Pharmacists' Association Wellington, NZ.
5	Back I (eds). Palliative Medicine Handbook (Online Edition). BPM Books, Cardiff, UK. (http://book.pallcare.info/)
6	Twycross R, Wilcock A (eds). Palliative Care Formulary 4th edition 2011. Palliativedrugs.com Ltd. Nottingham, UK. Adapted by Dr Cathy Miller for use in WDHB

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