

Clonazepam – Palliative Care (Adults)

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1. Overview

Purpose

This protocol outlines the administration, prescribing and monitoring of clonazepam at Waitemata District Health Board.

Scope

All medical and nursing staff



This guideline is for use in Palliative Care ONLY.

2. Presentation

Clonazepam 0.5mg and 2mg tablets

Clonazepam (Rivotril®) oral drops 2.5mg/ml (1 drop = 0.1mg of active ingredient)

Clonazepam 1mg/ml ampoules

3. Indications

Licensed:

- Seizures and myoclonus¹

Unlicensed:

- Anxiety, panic disorder, restless leg syndrome, neuropathic pain, terminal agitation²

Unlicensed route of administration:

- Subcutaneous

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4. Mechanism of Action

Clonazepam is a benzodiazepine. It has anti-convulsive, sedative, muscle relaxing and anxiolytic effects. These effects are thought to be mediated mainly by post-synaptic GABA mediated inhibition.¹

5. Dose

The conversion ratio for oral (PO) to subcutaneous (SC) clonazepam is 1:1 and therefore the doses are the same for both routes.

Note: Maximum daily doses should not exceed 2-3mg unless advised by the Palliative Care Team. PRN doses may be used more frequently under the advice of the Palliative Care Team.²

Indication ¹⁻³	Route	Stat and Starting PRN doses	Recommended Max dose	Range
Seizures	PO/Subcut	0.5 – 1mg	4mg	1 – 8mg daily in divided doses
Panic disorder	PO	0.25mg (tablets) or 0.3mg (3drops) q12hr	2mg	0.5 – 4mg nocte
Restless legs	PO	0.25mg (tablets) or 0.3mg (3drops) q12hr	2mg	0.5 – 2mg nocte
Neuropathic pain	PO	0.25 – 0.5mg (tablets) or 0.3 – 0.5mg (3 to 5 drops) q12hr	2mg	0.5 – 8mg daily in divided doses
Terminal restlessness	Subcut	0.5mg q2hr	3mg	2 – 8mg over 24 hours
	Syringe driver (CSCI)	1mg	3mg	2 – 8mg over 24 hours

Note: Clonazepam is long acting and can be given once daily as a bolus injection, preferably at night (because of sedative effect)²

! Never administer clonazepam (Rivotril®) drops directly into the mouth from the bottle. The medication should be measured into a teaspoon prior to administration. The drops can then be mixed with water, tea or fruit juice if required¹.

6. Administration

6.1 Diluent

- For subcutaneous bolus administration dilute each 1mg/ml ampoule with 1ml water for injection.^{2,4}
- When added to a syringe driver the recommended diluent is water for injection.^{2,4}

6.2 Additional equipment

- Subcutaneous Saf-T-Intima single lumen [ADM140]. (refer *WDHB Policy Palliative Care- Subcutaneous Site Selection, Insertion and Monitoring of BD Saf-T-Intima Cannula*)

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- If giving via syringe driver:
 - Continuous subcutaneous infusion pump (Niki T34)
 - Low-sorbing or non-PVC extension set (up to 50% of infused clonazepam is adsorbed onto PVC tubing)

6.3 Compatibility

Compatible with:

Water for injection, 0.9% sodium chloride, methadone, dexamethasone, morphine sulfate, morphine tartrate, oxycodone, haloperidol, hyoscine hydrobromide, hyoscine butylbromide, metoclopramide, octreotide, glycopyrronium, levomepromazine, ketamine.^{2, 4, 5}

Concentration dependent compatibility with:

Cyclizine^{2, 4}



Do not use if the solution is cloudy or a precipitate is present.

6.4 Administration Procedure

- Should be injected through a Saf-T- Intima single lumen (butterfly) [ADM140] or directly via subcutaneous needle.
- The Saf-T-Intima should be flushed with 0.2ml of water for injection after administration of medication.
- Can be administered via a continuous subcutaneous pump (Niki T34).

7. Observation and Monitoring

Monitor for excessive drowsiness

8. Contraindications and Precautions

Contraindications

- Hypersensitivity to clonazepam or other benzodiazepines
- Severe respiratory insufficiency
- Severe hepatic insufficiency¹

Precautions

- Respiratory disease
- Hepatic impairment
- Sleep apnoea syndrome
- Myasthenia gravis
- Avoid sudden withdrawal^{1, 2}

9. Possible Adverse Effects

- Drowsiness
- Fatigue/lassitude

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- Muscle weakness
- Dizziness
- Ataxia / Unsteadiness
- Confusional state
- Paradoxical reactions (irritability, aggression, agitation, nightmares)
- Respiratory depression
- Slowed reactions^{1,2}

Adverse effects can be minimised by starting with low doses at bedtime¹

10. Drug Interactions

- Concurrent use of clonazepam and other centrally acting medications may result in potentiation of their effects e.g. anti-convulsants, hypnotics, opiates, alcohol¹
- Phenytoin, carbamazepine and sodium valproate may increase the clearance of clonazepam¹

11. References

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