MONOGRAPH

Clonazepam

Scope (Staff):	Medical, Pharmacy, Nursing, Anaesthetic Technicians
Scope (Area):	All Clinical Areas

Child Safe Organisation Statement of Commitment

CAHS commits to being a child safe organisation by applying the National Principles for Child Safe Organisations. This is a commitment to a strong culture supported by robust policies and procedures to reduce the likelihood of harm to children and young people.

This document should be read in conjunction with this <u>DISCLAIMER</u>



QUICKLINKS				
<u>Dosage/Dosage</u> <u>Adjustments</u>	Administration	Compatibility	Monitoring	

DRUG CLASS

Clonazepam is a long acting benzodiazepine that potentiates the inhibitory effects of GABA throughout the CNS, resulting in anxiolytic, sedative, hypnotic, muscle relaxant and antiepileptic effects.^{1,2}

CLONazepam may be confused with cloBAZam; double check medication.

Clonazepam is a High Risk Medicine.

INDICATIONS AND RESTRICTIONS

Clonazepam is used at PCH for the following indication:

Epilepsy.¹

CONTRAINDICATIONS

- Hypersensitivity to clonazepam or any component of the formulation.
- Hypersensitivity to other benzodiazepines.
- Respiratory depression or compromised respiratory drive.¹
- Sleep apnoea.³

- Unstable Myasthenia gravis.³
- Severe hepatic impairment.¹

PRECAUTIONS

- Concurrent use with other drugs that cause central nervous system or respiratory depression.¹
- Dependence (physiological or psychological), tolerance and misuse.¹
- Abrupt withdrawal of benzodiazepines can cause withdrawal symptoms (e.g. anxiety, dysphoria, irritability, insomnia, nightmares, sweating, memory impairment, hallucinations, hypertension, tachycardia, psychosis, tremors and seizures). Rebound effects can also occur.¹
- Paradoxical effects may occur (e.g. increase in hostility and aggression, talkativeness, excitement, increased anxiety and perceptual disorders).³
- Pregnancy; short acting benzodiazepines are preferred.¹

FORMULATIONS

Listed below are products available at PCH, other formulations may be available, check with pharmacy if required:

- Oral Liquid: 2.5 mg/mL (dropper supplied with bottle one drop contains 0.1 mg of clonazepam).
- Tablets: 0.5 mg and 2 mg.
- Injection: 1 mg/mL ampoule.
 Imprest location: Formulary One

DOSAGE & DOSAGE ADJUSTMENTS

Neonates: Refer to Neonatal Medication Protocols

Dosing in Overweight and Obese Children: Dose based on Ideal Body Weight

Clonazepam injection contains benzyl alcohol and propylene glycol which can cause toxicity in patients receiving large doses. Avoid use in neonates.8

Status Epilepticus

Intravenous

 ≥ 4 weeks of age: 0.05 mg/kg (maximum 1 mg) as a single dose. Repeat after 15 minutes if necessary.^{1,4} Note: All doses below are expressed as "mg/dose", NOT "mg/kg"

Epilepsy

Oral

- <10 years or <30 kg, initially 0.1 to 0.3 mg (maximum 0.5 mg) daily in 2 or 3 divided doses, then increase every third day by 0.25 to 0.5 mg daily up to a usual maximum of 3 to 6 mg daily in 2 or 3 divided doses (maximum 2 mg/dose).⁴
- >10 years or >30 kg, initially 0.5 to 1 mg at bedtime for 4 days, then increase gradually over 2–4 weeks up to a usual maintenance dose of 4 to 8 mg daily at bedtime or in 3 or 4 divided doses (adult maximum 20 mg daily).⁴

Shorter intervals between dose titration may be used at the discretion of a Neurologist.

Renal impairment:

Use with caution; metabolites are renally excreted. Initiate at lower doses.¹

Hepatic impairment:

 Contraindicated in severe hepatic impairment. In mild to moderate impairment, low doses of short-acting benzodiazepine preferred.¹

RECONSTITUTION & ADMINISTRATION

Oral Liquid (See also Clonazepam Poster)

- Count drops onto a spoon.⁴
- Never administer the dose directly into the patient's mouth to avoid accidental overdose.⁴
- Never use a syringe or other device to withdraw a dose from the bottle. Use only the dropper supplied in the neck of the bottle.
- Dose may be mixed with water or fruit juice if required.⁵
- The oral liquid contains a blue dye that can stain teeth.⁵
- Can be given buccally but will stain the mouth and saliva blue.⁵

Tablets

- Use tablets for doses in multiples of 0.25 mg.
- Tablets are scored and can be cut into halves or guarters.⁵
- Tablets can be dispersed in 5 20 mL of water or crushed and mixed with a spoonful of puree.⁵

Ampoules

Dilute the solution with 1 mL of the provided water for injections to make a concentration of 500 micrograms/mL.⁶

IV Injection:

- Inject slowly into a large vein over at least 2 minutes.⁷
- Using a smaller vein or a faster rate my cause thrombophlebitis.⁷

COMPATIBILITY (LIST IS NOT EXHAUSTIVE)

Compatibilities of IV drugs must be checked when two or more drugs are given concurrently.

Compatible fluids:

IV: Glucose 5%, glucose 10%, glucose 2.5% in sodium chloride 0.45%, sodium chloride 0.9%.^{6,7}

MONITORING

Monitor for CNS depression: decreased level of consciousness and/or respiratory depression.

Record vital signs on the age-appropriate Observation and Response Tool and follow the 'Early Warning Escalation Pathway' or as per the treating team.

Signs and symptoms of suicidality (e.g. anxiety, depression, behaviour changes).8

Long-term use: FBC with differential, platelets, liver and renal function.^{8,9}

ADVERSE EFFECTS

Common: drowsiness, oversedation, light-headedness, memory loss, hypersalivation, ataxia, slurred speech, dependence, blurred vision.¹

Infrequent: headache, vertigo, disorientation, confusion, cognitive dysfunction (long-term use), paradoxical excitation, euphoria, aggression and hostility, anxiety, decreased libido, anterograde amnesia, respiratory depression, hypotension.¹

IV injection: pain and thrombophlebitis, severe hypotension, arrhythmias, respiratory arrest.1

Rare: Leucopenia, leucocytosis, jaundice, transient elevated liver function tests, allergic reactions including rash and anaphylaxis, suicidal ideation.^{1,8}

STORAGE

- Store below 25°C. Protect from light.9
- Reconstituted solution: use immediately.⁷

Clonazepam is a Schedule 4 Restricted (S4R) medication and must be stored securely and recorded in accordance with the <u>PCH Schedule 8 and Restricted Schedule 4 Medication Policy</u>.

INTERACTIONS

This medication may interact with other medications; consult PCH approved references (e.g. Clinical Pharmacology), a clinical pharmacist or PCH Medicines Information Service on extension 63546 for more information.

COMMENTS

Flumazenil may be used to reverse the effects of benzodiazepines.

Please note: The information contained in this guideline is to assist with the preparation and administration of **clonazepam. Any variations to the doses recommended should be clarified with the prescriber prior to administration**

Related CAHS internal policies, procedures and guidelines

PCH Schedule 8 and Restricted Schedule 4 Medication Policy

Clonazepam Poster

References

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