



MONOGRAPH

Diazepam

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 [DISCLAIMER](#)

! HIGH RISK MEDICINE !

QUICKLINKS

Dosage/Dosage Adjustments	Administration	Compatibility	Monitoring
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DRUG CLASS

Diazepam is a long acting benzodiazepine that potentiates the inhibitory effects of GABA throughout the central nervous system (CNS), resulting in anxiolytic, sedative, hypnotic, muscle relaxant and antiepileptic effects.¹

Diazepam is a [High Risk Medicine](#).

INDICATIONS AND RESTRICTIONS¹

- Muscle spasm or spasticity
- Status epilepticus
- Anxiety, agitation
- Premedication
- Benzodiazepine withdrawal management

CONTRAINDICATIONS¹

- Hypersensitivity to diazepam or any component of the formulation.
- Respiratory depression

- Myasthenia gravis
- Severe hepatic impairment

PRECAUTIONS

- Concurrent use with medications that cause CNS and respiratory depression – Increases the risk of CNS and respiratory depression. Avoid use or reduce diazepam dose and monitor closely¹
- Withdrawal symptoms may occur with abrupt cessation of diazepam after 1 to 2 weeks, especially with use of higher doses. Short term diazepam should be withdrawn slowly, using a gradual tapering schedule. Withdrawal symptoms may include irritability, nervousness, insomnia, sweating, nausea, confusion, tachycardia, trembling²

FORMULATIONS

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

- Diazepam 10 mg/10 mL elixir
- Diazepam 1 mg/mL liquid (5 mL pods for inpatient use)
- Diazepam 10 mg/ 2 mL ampoule
- Diazepam 2 mg tablet, 5 mg tablet

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

Renal impairment:

- Increased sensitivity to CNS effects. Use a lower initial dose in severe impairment¹
- [eGFR calculator](#)

Hepatic impairment:¹

- Severe impairment – contraindicated
- Mild to moderate impairment – use lower doses of a short-acting benzodiazepine to reduce risk of precipitating coma

MUSCLE SPASMS:

Oral:

- **1 month to 12 years:** Initially 0.1 mg/kg/dose up to 3 times daily. Adjust dose to response. Usual maximum 15 mg daily.³

- **12 to 18 years:** Initially 2–5 mg/dose up to 3 times daily. Adjust dose to response. Usual maximum 40 mg daily.³
- Patients in Thomas Splint Traction: give diazepam for 1 week or until muscle spasms subside.⁴
- Duration of treatment in patients with post-operative muscle spasms will be determined by the orthopaedics team depending on the degree of spasm and the patient's response to diazepam.

STATUS EPILEPTICUS, FEBRILE SEIZURES, RECURRENT PROLONGED OR REPETITIVE SEIZURES:

IV, Intraosseous:

- **1 month to 12 years:** 0.1–0.3 mg/kg (maximum 10 mg per dose). Dose may be repeated once after 10–15 minutes if necessary³
- **12 to 18 years:** 10 mg. Dose may be repeated once after 10–15 minutes if necessary³

Rectal:

- **1 month to 12 years:** 0.3–0.5 mg/kg (maximum 10 mg per dose). Dose may be repeated once after 10–15 minutes if necessary³
- **12 to 18 years:** 10–20 mg/dose. Dose may be repeated once after 10–15 minutes if necessary³

ANXIETY / AGITATION:

Oral:

- **6 months and older:** Initially, 1–2.5 mg/dose 3 to 4 times a day. The dose may be increased as needed and tolerated.²

PREMEDICATION:

Oral:

- **6 months and older:** 0.2–0.3 mg/kg, 45 to 60 minutes prior to procedure. Maximum 10 mg per dose.⁵

MANAGEMENT OF BENZODIAZEPINE WITHDRAWAL:

See [Withdrawal Syndrome Management](#) guideline.

Total daily diazepam dose (converted from another benzodiazepine) can be divided in 3 or 4 doses and administered at fixed times; gradually taper dosage. The use of the Withdrawal Assessment Tool (WAT-1) and discussion with APS is recommended.

Contact APS or a Clinical Pharmacist for guidance when prescribing.

ADMINISTRATION

ORAL:

- Take with or without food.

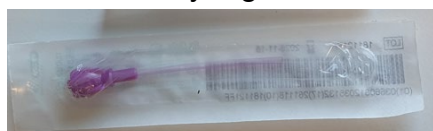
IV:

- Inject undiluted by slow injection over at least 3 to 5 minutes, do not exceed a rate of 1–2 mg/minute.^{3, 6}
- Rapid IV injection may cause syncope, respiratory depression and hypotension.³
- IV diazepam must be administered by or under the direct supervision of medical staff unless there is a hospital or unit protocol endorsed by the CAHS Drug and Therapeutics Committee. See [Medication Administration](#) Policy.

RECTAL:

- Oral liquid or injection may be used rectally.³ Method of administration described below:
 1. Choose an appropriate luer lock enteral syringe to accurately draw up the dosage and choose an appropriately sized syringe straw (as per the images below).

Small 5 cm syringe straw



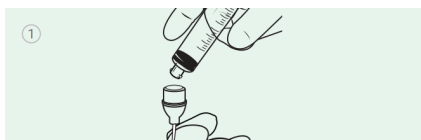
= For infants and small children

Large 15 cm syringe straw



= For adolescents and large children

2. Connect the syringe straw to the syringe.



3. Insert the straw into the diazepam liquid and cycle the syringe to eliminate air bubbles (*note: observe to make sure there are no air bubbles in the syringe or straw*). If drawing diazepam injection from glass ampoules, ensure that the solution is drawn up using a 5-micron filter needle.
4. Draw up the required volume of diazepam using the syringe straw.
5. Lubricate the syringe straw with lubricating jelly.
6. Position the child on their **left** side (in the recovery position) with blue incontinence sheet beneath. Placing the patient in the left lateral position reduces the risk of perforating the rectum by ensuring that the syringe straw is inserted in line with the normal anatomy of the bowel.
7. Gently insert the syringe straw into the rectum as below (if the tube is not inserted far enough the solution will run straight back out of the anus).
 - a. Infants and small children; 2.5 – 5 cm
 - b. Adolescents and larger children; 7 – 10cm
8. Gently expel the entire contents of the syringe (**Note: after administration of the dose there will be excess liquid remaining in the syringe straw which must be discarded**).
9. Hold the patient buttocks together gently for 2 minutes to prevent leakage of the medication.

10. Dispose of all equipment into double bags and place in clinical waste.
11. Remove rubbish and any soiled linen from the ward area.
12. If the child is incontinent of faeces, the nappy should also be double bagged before disposal.

- For more information on administration of rectal diazepam refer to the Perth Children's Hospital [Diazepam Health Facts](#) Consumer Information Leaflet.

COMPATIBILITY (*LIST IS NOT EXHAUSTIVE*)

Compatible fluids: Glucose 5%, sodium chloride 0.9%.⁶

[Compatibilities of IV drugs](#) must be checked when two or more drugs are given concurrently.

INCOMPATIBLE drugs: Extensive list of incompatible drugs, avoid mixing with other drugs⁶

MONITORING

- Monitor for CNS depression: decreased level of sedation and / or respiratory depression.
- Record vital signs on [PARROT](#) chart: respiratory rate, pulse, oxygen saturation and blood pressure (BP) as outlined or as per the treating team.

REVERSAL OF BENZODIAZEPINE OVERDOSE / OVERSEDATION

[Flumazenil](#) can be used to reverse the effects of diazepam. Clinical areas must ensure they have access to flumazenil injection before administering diazepam.

- **IV Injection:** 5–10 micrograms/kg/dose (maximum 200 micrograms) administered over 15 seconds. Dose may be repeated every minute if the desired level of consciousness not achieved, up to a maximum of 5 doses in total. Maximum cumulative dose of 50 microgram/kg or 1 mg, whichever is lower.^{2, 3}

A continuous IV infusion may be commenced if drowsiness recurs after IV injection.

- **Continuous IV Infusion:** 2–10 micrograms/kg/hour (maximum 400 micrograms/hour), adjust dose to response.^{2, 7}

ADVERSE EFFECTS¹

Common: Drowsiness, over-sedation, light-headedness, hypersalivation, ataxia, slurred speech, dependence, blurred vision

Infrequent: Headache, vertigo, disorientation, confusion, paradoxical excitation, euphoria, aggression, anxiety, anterograde amnesia, respiratory depression, hypotension.

IV injection: pain, thrombophlebitis, severe hypotension, arrhythmias, respiratory arrest

Rare: Blood disorders (including leucopenia, leucocytosis), jaundice, transient elevated liver function tests, allergic reactions

STORAGE

- Store below 25°C. Protect from light.⁸
- Discard Diazepam Elixir 10 mg/10 mL oral liquid 90 days after opening.⁸
- Diazepam is a Schedule 4 Recordable medication (S4R) and must be stored and recorded as such. Refer to the [Schedule 8 and Restricted Schedule 4 Medication](#) Policy.

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.

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

Related CAHS internal policies, procedures and guidelines

[High Risk Medicines](#)

[Withdrawal Syndrome Management](#)




[Medication Administration](#)

[Schedule 8 and Restricted Schedule 4 Medication](#)

References

1. Australian Medicines Handbook 2023. Available from: <https://amhonline-amh-net-au.pklibresources.health.wa.gov.au/chapters/psychotropic-drugs/drugs-anxiety-sleep-disorders/benzodiazepines/diazepam?menu=hints>.
2. Clinical Pharmacology 2023. Available from: <https://www-clinicalkey-com.pklibresources.health.wa.gov.au/pharmacology/monograph/181?n=Diazepam>.
3. AMH Children's Dosing Companion: Australian Medicines Handbook Pty Ltd; 2023. Available from: <https://childrens-amh-net-au.pklibresources.health.wa.gov.au/monographs/diazepam?menu=hints>.
4. Bowden VR, Greenberg CS. Children and their families: The continuum of care: Lippincott Williams & Wilkins; 2010.
5. UpToDate: Lexicomp; 2023. Available from: https://www-uptodate-com.pklibresources.health.wa.gov.au/contents/diazepam-drug-information?search=diazepam&source=panel_search_result&selectedTitle=1~148&usage_type=panel&kp_tab=drug_general&display_rank=1.
6. Society of Hospital Pharmacists of Australia. Australian Injectable Drugs Handbook: Health Communication Network; 2023. Available from: https://aidh-hcn-com-au.pklibresources.health.wa.gov.au/browse/about_aidh.
7. BNF for children (BNFC) 2023. Available from: <https://www-medicinescomplete-com.pklibresources.health.wa.gov.au/#/content/bnfc/273684709?hspl=diazepam>.
8. MIMS Online: MIMS Australia Pty Ltd; 2023. Available from: https://www-mimsonline-com-au.pklibresources.health.wa.gov.au/Search/FullPI.aspx?ModuleName=Product%20Info&searchKeyword=diazepam&PreviousPage=~/Search/QuickSearch.aspx&SearchType=&ID=70510001_2.

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