



MONOGRAPH

VinCRISTine

Scope (Staff):	Medical, Pharmacy, Nursing
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

Vinca alkaloid. ¹

VinCRISTine is a [High Risk Medicine](#);

VinCRISTine is a [Cytotoxic Medicine](#).

Extravasation: VinCRISTine is a vesicant. Refer to [Cytotoxic/Biotherapy Agents: Extravasation Policy](#).

Emetogenic Rating: Minimal. Refer to [Chemotherapy Induced Nausea and Vomiting \(CINV\) Management Guideline](#).

INDICATIONS AND RESTRICTIONS

- VinCRISTine can only be prescribed by Oncologists or Haematologists as per protocol for the treatment of malignancy.

CONTRAINDICATIONS

VinCRISTine causes devastating neurological injury and may be fatal if given intrathecally.¹

- Hypersensitivity to VinCRISTine or any component of the formulation.
- Intercurrent radiotherapy to the liver due to increased risk of radiation-induced hepatotoxicity.¹
- Demyelinating form of Charcot-Marie-Tooth syndrome.²

PRECAUTIONS

- VinCRISTine is a cytotoxic medication and must be handled with care. Extra vigilance is required regarding the safe preparation, administration and monitoring of cytotoxic medications.
- Cytotoxic precautions are to be followed in the handling of patient waste for seven days following completion of cytotoxic therapy.
- VinCRISTine MUST NOT be delivered to the patient at the same time as any other medications intended for central nervous system administration.^{3, 4}
- Administration with other neurotoxic agents may cause additional neurotoxicity.¹
- Neurotoxicity may be increased in patients with neuropathy or neuromuscular disease.¹
- Care should be taken to ensure that the needle or catheter is securely within the vein or port to avoid extravasation as VinCRISTine is a vesicant.³
- Vinca alkaloids have been reported to cause acute shortness of breath and severe bronchospasm. This is usually when vincristine is given within 2 weeks of mitomycin administration.^{1, 5}

FORMULATIONS

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

VinCRISTine is available as a 2 mg/2 mL vial.

Imprest location: [Formulary One](#)

DOSAGE & DOSAGE ADJUSTMENTS

Dosage as per treatment protocol in the OIMS (Oncology Information Management System).

Note: Some treatment protocols may restrict the maximum dose to 2 mg.

Renal impairment:

- Dose adjustment as per treatment protocol.
- [eGFR calculator](#)

Hepatic impairment:

- Caution is advised when administering VinCRISTine to patients with hepatic insufficiency.⁵

- Dose adjustment as per treatment protocol.

Treatment related toxicity:

- Dose adjustment as per treatment protocol.

RECONSTITUTION & ADMINISTRATION

- Handle as [cytotoxic](#).

VinCRISTine must be compounded by Pharmacy Compounding Service (PCS) in a cytotoxic drug safety cabinet by pharmacy personnel who have appropriate training and validation in aseptic and cytotoxic drug reconstitution and handling techniques.

- **IV infusion:** Dilute the dose in appropriate volume of sodium chloride 0.9% in a minibag.^{1, 3, 4, 6}

VinCRISTine should only be compounded in minibags (NOT syringes), to minimise the possibility of inadvertent intrathecal administration.

- A warning label **“WARNING – For intravenous use ONLY. May be fatal if given by any other route”** must be attached to the IV minibag and outer bag of all VinCRISTine products.^{4, 6, 7}

Preferable to administer via central line or large peripheral vein.

Vinca alkaloid drugs must always be administered intravenously.^{3, 6, 7}

- **Intravenous infusion:** Administer by a short IV infusion over 15 minutes or as per treatment protocol.

COMPATIBILITY (LIST IS NOT EXHAUSTIVE)

Compatible fluids: Glucose 5%, Sodium Chloride 0.9% or Hartmann's solution.⁶

Compatible and INCOMPATIBLE drugs:

Antineoplastic therapies are not routinely administered with other medications. Consult two or more drugs references ([Compatibilities of IV drugs](#)) or pharmacy when there is a requirement for medications to be given concurrently.

MONITORING

- **Prior to administration** assess patient for any significant neurotoxicity including vocal cord paralysis, jaw pain and foot drop, abdominal pain, ileus / constipation.^{2, 5, 8}
- Monitor serum electrolytes and liver function as per treatment protocol in the OIMS.^{2, 5, 8}
- Ensure patency of the line or vein before administration.^{2, 5, 8}
- Monitor infusion site during the infusion (especially with peripheral lines).^{2, 5, 8}

ADVERSE EFFECTS

Common: Alopecia, constipation, loss of deep tendon reflexes, nausea, oral mucositis, vomiting.^{2, 3}

Infrequent: Jaw pain, headache, weakness, abdominal pain, mild brief myelosuppression, peripheral paraesthesia, clumsiness, wrist drop, foot drop, abnormal gain.^{2, 3}

Rare: Extravasation, shortness of breath, bronchospasm, paralytic ileus, ptosis, diplopia, night blindness, hoarseness, vocal cord paralysis, SIADH, seizure, defective sweating, difficulty walking,

sinusoidal obstruction syndrome, blindness, optic atrophy, urinary tract disorders, autonomic neuropathy with postural hypotension, 8th cranial nerve damage with dizziness, nystagmus, vertigo and hearing loss.^{2, 3}

STORAGE

Vial: Store at 2° to 8°C. Do not freeze. Protect from light.^{2, 6}

Diluted solution: Store at 2° to 8°C. Do not freeze.

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 **VinCRISTine**. Any variations to the doses recommended should be clarified with the prescriber prior to administration

Related CAHS internal policies, procedures and guidelines

[Cytotoxic Biotherapy Agents Administration](#)

[Cytotoxic Biotherapy Agents Extravasation](#)

[Cytotoxic Biotherapy Agents Safety](#)

[Chemotherapy Induced Nausea and Vomiting Management](#)

Related external legislation, policies and guidelines



[Mandatory Standard for Vinca Alkaloids](#)

References

1. Australian Medicines Handbook [Internet]. Australian Medicines Handbook Pty Ltd. 2022 [cited 14/10/2022].
2. Ltd PAP. Pfizer (Australia) Vincristine Sulfate Product Information: MIMS Australia PTY Ltd; 2021 [updated 27/09/2021. Available from: https://www.mimsonline-com-au.pklibresources.health.wa.gov.au/Search/FullPI.aspx?ModuleName=Product%20Info&searchKeyword=vincristine&PreviousPage=~/Search/QuickSearch.aspx&SearchType=&ID=10660001_2.
3. Drug Information For Commercial Agents Used by the Children's Oncology Group [Internet]. Children's Oncology Group. 2022 [cited 14/10/2022]. Available from: <https://www.cogmembers.org/files/disc/Pharmacy/CommercialAgentsMonographs.pdf>.
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6. Australian Injectable Drugs Handbook 8th Edition: Vincristine Monograph [Internet]. The Society of Hospital Pharmacists of Australia. 2020. Available from: https://aidh-hcn-com-au.pklibresources.health.wa.gov.au/browse/v/vincristine_-_antineoplastic.

7. Care ACfSaQiH. High Risk Medication Alert- Vincristine2005. Available from: <https://www.safetyandquality.gov.au/sites/default/files/migrated/High-Risk-Medication-Alert-%E2%80%93-Vincristine-2005-328KB.pdf>.
8. Parenteral and Oral Chemotherapy Administration Guidelines Used by the Children's Oncology Group [Internet]. Children's Oncology Group. 2022 [cited 14/10/2022]. Available from: <https://www.cogmembers.org/files/disc/Pharmacy/ChemoAdminGuidelines.pdf>.

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Compassion

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Collaboration

Accountability

Equity

Respect

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