

For Health Professionals Who Care for People with Cancer

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Resources and Contact Information

Editor's Choice

Dexrazoxane Prolonged Infusion

Dexrazoxane is a cardioprotectant commonly used to mitigate the risk of cardiotoxicity associated with anthracycline chemotherapy, specifically doxorubicin. Doxorubicin, while effective in treating various cancers, is known for its ability to cause dose-dependent cardiotoxicity. Dexrazoxane, when administered before or shortly after doxorubicin, acts as a protective agent by interfering with iron-mediated free radical generation that is associated with anthracycline-induced cardiotoxicity, thus preserving cardiac function. The recommended dosage ratio of dexrazoxane: doxorubicin is 10:1 (e.g. dexrazoxane 750 mg/m²:doxorubicin 75 mg/m²), with the recommended infusion time set at 15 minutes.

Recent review of pharmacokinetic parameters comparing the standard 15-minute infusion to a prolonged 30-minute infusion suggests that the extended infusion time does not significantly affect the peak concentration or elimination of dexrazoxane. Dexrazoxane should ideally be administered over 15 minutes whenever possible to ensure optimal pharmacokinetics and effectiveness. However, if the infusion is limited by the maximum IV infusion pump rate of 999 ml/hr, the administration time may be extended to 30 minutes. This adjustment allows for the delivery of the required dose without exceeding the pump's maximum rate, while still maintaining the drug's efficacy and safety.

Editor's Choice

Dexrazoxane Prolonged Infusion

References

- 1 Pfizer. ZINECARD product monograph. 30 March 2015.
- 2 Clinigen. TOTEC prescribing information. November 2020.
- 3 Mylan. Dexrazoxane prescribing information. April 2018.
- 4 Hikma. Dexrazoxane prescribing information. December 2018.
- 5 Earhart RH, Tutsch KD, Koeller JM, et al. Pharmacokinetics of (+)-1,2-di(3,5-dioxopiperazin-1-yl)propane intravenous infusions in adult cancer patients. *Cancer Res.* 1982;42(12):5255-5261.

LYEPOCHR Update

LYEPOCHR has been reviewed and updated to support future transition of treatment delivery to outpatient setting. The first pilot site is at one of the BC Cancer regional centers.

Notable change: Intrathecal methotrexate order is now optional. BC Cancer protocol and Cerner PowerPlans will be updated accordingly.

Caution: This change is a shift from current practice and Cerner PowerPlan design. If intrathecal methotrexate is deemed appropriate for a patient, providers will need to select it in the Cerner PowerPlan.

Cancer Drug Manual[®]

All documents are available in the [Cancer Drug Manual[®]](#) on the BC Cancer website.

New Documents

The **Crisantaspase recombinant Monograph** has been developed with expert review provided by Jennifer Kendrick (clinical pharmacy specialist, BC Children's Hospital). Crisantaspase recombinant is a recombinant form of *Erwinia* asparaginase, an enzyme that catalyzes the conversion of L-asparagine into aspartic acid and ammonia. Crisantaspase recombinant is used in the treatment of acute lymphoblastic leukemia and non-Hodgkin lymphoma. The usual dose in pediatric and adult patients is 25 mg/m² IM given on Monday and Wednesday plus 50 mg/m² IM given on Friday of each week. Cycle length is generally two weeks.

Highlights from these documents include:

- hypersensitivity reactions including anaphylaxis may occur; be prepared to treat anaphylaxis with each administration
- crisantaspase recombinant can increase the risk of bleeding or clotting
- severe cases of pancreatitis have been reported
- avoid in patients with severe hepatic impairment due to the risk of serious liver toxicity

Crisantaspase recombinant has been updated in the **Chemotherapy Preparation and Stability Chart** and was previously evaluated for the **BC Health Authorities Provincial Hazardous Drug List**.

Revised Documents

Asparaginase Monograph

Throughout: created an abbreviated document containing *Drug Name* (including *Synonyms, Common Trade Names*), *Classification, Mechanism of Action, and References*, added messaging to direct reader to individual drug monographs for each new asparaginase formulation

Dexrazoxane Monograph

Synonyms: *Synonyms:* added chemical name

Special Precautions: updated *Contraindications, Carcinogenicity, Fertility, and Pregnancy* sections; deleted FDA pregnancy category

Side Effects table: added AML/MDS

Parenteral Administration table: added information pertaining to infusions longer than 15 minutes

Niraparib Monograph

Special Precautions: added information about AML/MDS to *Carcinogenicity* section

Side Effects table: updated the incidence of AML/MDS

Pegaspargase Monograph

Mechanism of Action: added *Comparison Table of Asparaginase Products* to align with calaspargase pegol and crisantaspase recombinant monographs

Siltuximab Monograph

Supply and Storage: updated manufacturer/supplier for Canadian supply

Topotecan Monograph

Special Precautions: updated statement about renal dysfunction in *Cautions* section; updated *Pregnancy* section and deleted FDA Pregnancy Category

Side Effects table: updated references for extravasation Hazard and emetogenic potential

Supply and Storage: updated with brands currently available in Canada

Parenteral Administration table: updated information and references for intrathecal route

Chemotherapy Preparation and Stability Chart

Asparaginase: entry deleted, created placeholders to redirect to individual entries for calaspargase pegol, crisantaspase recombinant and pegaspargase

Daunorubicin: added Hikma brand

Crisantaspase recombinant: updated wording regarding max volume of administration in a single site

Siltuximab: updated manufacturer/supplier for Canadian supply

Retired Documents

The **Asparaginase Monograph** and **Patient Handout** have been retired. The monograph has been replaced with an abbreviated placeholder document to redirect the reader to the individual drug monographs for calaspargase pegol, crisantaspase recombinant, and pegaspargase. Likewise, asparaginase has been deleted from the **Chemotherapy Preparation and Stability Chart**, and placeholders have been created to redirect the reader to individual entries for calaspargase pegol, crisantaspase recombinant, and pegaspargase. CDM Patient Handouts are not currently available for calaspargase pegol, crisantaspase recombinant, or pegaspargase.

CDM Acknowledgements

The Cancer Drug Manual writing team, Nadine Badry, editor (BC Cancer – Provincial Pharmacy), and Amy Lim, CDM Writer, (BC Cancer – Abbotsford), would like to acknowledge the contributions of the CDM Editorial Review Board and expert reviewers for the year 2024. Thank you to all incoming and outgoing board members for their ongoing support of the CDM and for generously sharing their time and expertise throughout the year. Special thanks also to our expert reviewers for reviewing our newly developed drug documents and answering our clinical questions.

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Provincial Systemic Therapy

Respiratory Viruses, COVID-19 and Cancer - Information for Patients Webpage

The Provincial Systemic Therapy program has updated the BC Cancer web page [Respiratory viruses, COVID-19 and cancer information for patients](#), to include influenza vaccine recommendations and an accompanying [patient handout](#).

The [Influenza vaccine recommendations for healthcare professionals](#) is available on the BC Cancer website in the [Supportive Care](#) section of the Cancer Management Manual and on the [Immunotherapy](#) and [Supportive Care](#) pages in the Chemotherapy Protocols section.

Continuing Education

Family Practice Oncology Network

The Family Practice Oncology Network (FPON) is pleased to announce a webinar session on Endometrial Cancer with Dr. Anna Tinker, on Thursday 16 January 2025, from 8 to 9 am, as part of the Complimentary Accredited Webinar Series.

The session will cover:

- Risk factors for developing endometrial cancer
- Red flag symptoms
- Diagnostic process
- Management approach and post-treatment surveillance recommendations

For more information and links to registration, visit:

<https://ubccpd.ca/learn/learning-activities/course?eventtemplate=884-fpon-webinar-endometrial-cancer>

Benefit Drug List

New Programs

The following treatment programs have been added to the BC Cancer [Benefit Drug List](#) effective 01 January 2025:

Protocol Title	Protocol Code	Benefit Status
Treosulfan in combination with fludarabine as part of conditioning treatment prior to allogeneic hematopoietic stem cell transplantation in adult patients with acute myeloid leukemia or myelodysplastic syndromes at increased risk for standard conditioning therapies	BMTNOS	Class I

List of Revised Protocols, Pre-Printed Orders and Patient Handouts

BC Cancer Protocol Summaries, Provincial Pre-Printed orders (PPPOs) and Patient Handouts are revised periodically. New, revised or deleted protocols, PPPOs and patient handouts for this month are listed below, with document revisions indicated in the respective columns. Protocol codes for treatment requiring BC Cancer Compassionate Access Program approval are prefixed with the letter **U**.

REVISED Protocols, PPPOs and Patient Handouts (*revisions in respective columns*)

Code	Protocol Title	Protocol	PPPO	Handout
BR Breast				
BRAVPALAI	Therapy of Advanced Breast Cancer using Palbociclib and Aromatase Inhibitor With or Without LHRH Agonist	<i>Exclusions updated</i>	--	--
BRAVPBFLV	Therapy of Advanced Breast Cancer using Palbociclib and Fulvestrant With or Without LHRH Agonist	<i>Exclusions updated</i>	--	--
BRAVRBFLV	Therapy of Advanced Breast Cancer using Ribociclib and Fulvestrant With or Without LHRH Agonist	<i>Exclusions updated</i>	--	--
BRAVRIBAI	Therapy of Advanced Breast Cancer using Ribociclib and Aromatase Inhibitor With or Without LHRH Agonist	<i>Exclusions updated</i>	--	--
GI Gastrointestinal				
GIPE	Palliative Therapy of Neuroendocrine Tumours using Cisplatin and Etoposide	--	<i>Standing orders for etoposide toxicity removed</i>	--
GO Gynecologic				
GOBEP	Therapy of Non-Dysgerminomatous Ovarian Germ Cell Cancer Using Bleomycin, Etoposide and Cisplatin	--	<i>Standing orders for etoposide toxicity removed</i>	--
GOCABR	Alternative Treatment of Gynecological Malignancies using Carboplatin and Paclitaxel NAB (ABRAXANE)	<i>Tests and precautions updated</i>	<i>Tests updated</i>	--
GOCXCAT	Primary Treatment of Advanced/Recurrent Non-Small Cell Cancer of the Cervix with Carboplatin and Paclitaxel in Ambulatory Care Settings	<i>Tests, treatment and precautions updated</i>	<i>Tests updated</i>	--
GOEP	Therapy of Non-Dysgerminomatous Ovarian Germ Cell Cancer Using Etoposide and Cisplatin	--	<i>Standing orders for etoposide toxicity removed</i>	--
GOOVCATM	Primary Treatment of No Visible Residual (Moderate-High Risk) Invasive Epithelial Ovarian, Fallopian Tube and Primary Peritoneal Cancer Using Carboplatin and Paclitaxel	<i>Tests, treatment and precautions updated</i>	<i>Tests updated</i>	--
GOOVCATR	Second Line Treatment of Invasive Epithelial Ovarian, Fallopian Tube or Peritoneal Cancer Relapsing after Primary Treatment Using Paclitaxel and Carboplatin	<i>Tests, treatment and precautions updated</i>	<i>Tests updated</i>	--

REVISED Protocols, PPPOs and Patient Handouts (*revisions in respective columns*)

Code	Protocol Title	Protocol	PPPO	Handout
GOOVCATX	Primary Treatment of Visible Residual (Extreme Risk) Invasive Epithelial Ovarian, Fallopian Tube or Peritoneal Cancer using Carboplatin and Paclitaxel	<i>Tests, treatment and precautions updated</i>	<i>Tests updated</i>	--
GOOVETO	Treatment of Relapsed/Progressing Epithelial Ovarian, Primary Peritoneal, or Fallopian Tube Carcinoma Using Etoposide	--	<i>Standing orders for etoposide toxicity removed</i>	--
GOSCPPE	Treatment of Small Cell Gynecologic Cancer with Cisplatin and Etoposide	--	<i>Standing orders for etoposide toxicity removed</i>	--
GOSCPERT	Treatment of Small Cell Gynecologic Cancer using Cisplatin and Etoposide with Radiation Therapy	--	<i>Standing orders for etoposide toxicity removed</i>	--
GOTDEMACO	Therapy for High Risk Gestational Trophoblastic Neoplasia (GTN) Using Etoposide, Methotrexate, Leucovorin (Folinic Acid), Dactinomycin, Cyclophosphamide and Vincristine	--	<i>Standing orders for etoposide toxicity removed</i>	--
GU Genitourinary				
GUBEP	Curative Therapy for Germ Cell Cancer using Bleomycin, Etoposide and Cisplatin	--	<i>Standing orders for etoposide toxicity removed</i>	--
GUEDPM	Treatment of Metastatic Adrenocortical Cancer with Etoposide, Doxorubicin, Cisplatin and Mitotane	--	<i>Standing orders for etoposide toxicity removed</i>	--
GUEP	Therapy for nonseminoma germ cell cancer using Etoposide-Cisplatin	--	<i>Standing orders for etoposide toxicity removed</i>	--
GUSCPPE	Palliative Therapy of Extensive Stage Genitourinary Small Cell Tumours with a Platinum and Etoposide	--	<i>Standing orders for etoposide toxicity removed</i>	--
GUSCPERT	Therapy of Genitourinary Small Cell Tumours with a Platinum and Etoposide with Radiation	--	<i>Standing orders for etoposide toxicity removed</i>	--
HN Head and Neck				
HNAVPE	Treatment of Recurrent and Metastatic Squamous Cell Cancer with Platinum and Etoposide	--	<i>Standing orders for etoposide toxicity removed</i>	--
HNNAVPE	Treatment of Recurrent and/or Metastatic Nasopharyngeal Cancer with Platinum and Etoposide	--	<i>Standing orders for etoposide toxicity removed</i>	--
LU Lung				
LUAVPG	Treatment of Advanced Non-Small Cell Lung Cancer (NSCLC) with Platinum and Gemcitabine	<i>Gemcitabine and carboplatin dosing updated</i>	<i>Gemcitabine and carboplatin dosing updated</i>	--
LUAVPGPMB	First-Line Treatment of Advanced Squamous Non-Small Cell Lung Cancer with Platinum, Gemcitabine and Pembrolizumab	<i>Gemcitabine and carboplatin dosing updated</i>	<i>Gemcitabine and carboplatin dosing updated</i>	--

REVISED Protocols, PPPOs and Patient Handouts (*revisions in respective columns*)

Code	Protocol Title	Protocol	PPPO	Handout
LULAPE2RT	Treatment of locally advanced non-small cell lung cancer using Alternative Dosing of Cisplatin and etoposide with radiation therapy	--	<i>Standing orders for etoposide toxicity removed</i>	--
LULAPERT	Treatment of Locally Advanced Non-Small Cell Lung Cancer using Cisplatin and Etoposide with Radiation Therapy	--	<i>Standing orders for etoposide toxicity removed</i>	--
LUMMPG	Treatment of Malignant Mesothelioma with Platinum and Gemcitabine	<i>Gemcitabine and carboplatin dosing updated</i>	<i>Gemcitabine and carboplatin dosing updated</i>	--
LUOTPE	Treatment of Thymoma with Cisplatin and Etoposide	--	<i>Standing orders for etoposide toxicity removed</i>	--
LUOTPERT	Treatment of Thymoma Using Cisplatin and Etoposide with Radiation Therapy	--	<i>Standing orders for etoposide toxicity removed</i>	--
LUPUPE	Treatment of Cancer of Unknown Primary Involving the Thorax with Cisplatin and Etoposide	--	<i>Standing orders for etoposide toxicity removed</i>	--
LUSCATPE	Treatment of Extensive Stage Small Cell Lung Cancer (SCLC) with Atezolizumab, Platinum and Etoposide	--	<i>Standing orders for etoposide toxicity removed</i>	--
LUSCDURPE	Treatment of Extensive Stage Small Cell Lung Cancer (SCLC) with Durvalumab, Platinum and Etoposide	--	<i>Standing orders for etoposide toxicity removed</i>	--
LUSCPE	Treatment of Extensive Stage Small Cell Lung Cancer (SCLC) with Platinum and Etoposide	--	<i>Standing orders for etoposide toxicity removed</i>	--
LUSCPERT	Treatment of Limited Stage Small Cell Lung Cancer using Platinum and Etoposide with Radiation Therapy	--	<i>Standing orders for etoposide toxicity removed</i>	--
LY Lymphoma				
LYBVAVDBV	Treatment of Previously Untreated, Stage IV Hodgkin Lymphoma with Sequential Brentuximab Vedotin and Doxorubicin, Vinblastine and Dacarbazine in Patients 60 Years or Older	--	<i>Standing orders for etoposide toxicity removed</i> (Cycles 3-8 PPO)	--
LYEPOCHR	Treatment of Lymphoma with Dose-Adjusted Etoposide, Doxorubicin, Vincristine, Cyclophosphamide, Prednisone and Rituximab with Intrathecal Methotrexate	<i>Exclusion removed, eligibility, tests, treatment, precautions updated</i>	--	<i>Treatment plan, instructions for patients, side effects updated</i>
MO Miscellaneous Origin				

REVISED Protocols, PPPOs and Patient Handouts *(revisions in respective columns)*

Code	Protocol Title	Protocol	PPPO	Handout
MOIT	Solid Tumours using Intrathecal Methotrexate and/or Thiotepa and/or Cytarabine	<i>Tests, dose modifications and precautions updated</i>	<i>Logo changed, pre-chemo metrics, treatment and tests updated, formatting</i>	--
SC Supportive Care				
SCCRS	Cytokine Release Syndrome Management	<i>Grade 3 and 4 corticosteroid treatment and references updated)</i>	<i>Removed 3 dose salbutamol max dose, methylprednisolone 125mg dosing from Grade 3 and 4, and 3-day duration for methylprednisolone 1g dosing option</i>	--
SCICANS	Immune Effector Cell-Associated Neurotoxicity Syndrome Management	<i>Corticosteroids duration for Grade 3 and 4, corticosteroid taper information added diluent information for anakinra and references updated</i>	<i>Removed methylprednisolone duration in Grade 3 and 4</i>	--
SM Skin & Melanoma				
SMMCCPE	Treatment of recurrent or metastatic Merkel cell carcinoma (MCC) with Cisplatin and Etoposide	<i>Emetogenic risk category updated, precautions updated</i>	<i>Premedications updated, standing orders for etoposide toxicity removed</i>	--

Resources and Contact Information

Resource	Phone	Email / Toll Free / Fax
Systemic Therapy Update: www.bccancer.bc.ca/health-professionals/clinical-resources/systemic-therapy/systemic-therapy-update		
Systemic Therapy Update Editor	604-877-6000 x 672649	bulletin@bccancer.bc.ca
Oncology Drug Information	604-877-6275	druginfo@bccancer.bc.ca
Cancer Drug Manual Editor	250-519-5500 x 693742	nbadry@bccancer.bc.ca
Pharmacy Oncology Certification	250-712-3900 x 686820	rxchemocert@bccancer.bc.ca
CAP – Compassionate Access Program	604-877-6277	cap_bcca@bccancer.bc.ca fax 604-708-2026
OSCAR – Online System for Cancer Drugs Adjudication and Reimbursement	888-355-0355	oscar@bccancer.bc.ca fax 604-708-2051
Library/Cancer Information	604-675-8003	toll free 888-675-8001 x 8003 requests@bccancer.bc.ca
Library Document Delivery	604-675-8002	requests@bccancer.bc.ca
Pharmacy Professional Practice	604-877-6000 x 672247	mclin@bccancer.bc.ca
Professional Practice, Nursing	604-877-6000 x 672623	BCCancerPPNAdmin@phsa.ca
Provincial Systemic Therapy Network	604-877-6000 x 672247	ProvincialSystemicOffice@bccancer.bc.ca
BC Cancer – Abbotsford	604-851-4710	toll free 877-547-3777
BC Cancer – Kelowna	250-712-3900	toll free 888-563-7773
BC Cancer – Prince George	250-645-7300	toll free 855-775-7300
BC Cancer – Surrey	604-930-2098	toll free 800-523-2885
BC Cancer – Vancouver	604-877-6000	toll free 800-663-3333
BC Cancer – Victoria	250-519-5500	toll free 800-670-3322
Community Oncology Network (CON) sites: To update your contact information, please contact: bulletin@bccancer.bc.ca		

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