

# Systemic Therapy Update



BC Cancer Agency

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For health professionals who care for cancer patients  
Available online at [www.bccancer.bc.ca/HPI/ChemotherapyProtocols/stupdate](http://www.bccancer.bc.ca/HPI/ChemotherapyProtocols/stupdate)

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- [List of New and Revised Protocols, Pre-Printed Orders and Patient Handouts](#) – **New:** HNAVFUP, HNNAVFUP, HNNLAPG, LYCARTOP, SCESA
- **Revised:** BRAJTR, BRLACDT, GOOIPPC, HNAVPG, HNFUP, HNNAVPG, LYFLUDR, LYGDP, LYRITUX, LYRITZ, LYABVD, LYCVPR, LYFLUDR, USAAVGEMD, SADITC; **Highly Emetogenic Protocols:** CNCCV, GIENDO2, GIGAVECC, GIGAVECF, UGIGDCF, GIGECC, GIGECF, GOSMCCRT, GOBEP, GOEP, GOVCIS, UGUAJPG, GUAVPG, GUBEP, GUEP, GUMVAC, UGUNAJP, UGUTIP, GUVIEP, GUVIP2, LUAJNP, LUAVDC, LUAVPG, LUMMPG, LUMMPP, ULUOTPAC, SAAJADIC, SAAVADIC, SMDTIC
- [Website Resources and Contact Information](#)

## EDITOR'S CHOICE

### HIGHLY EMETOGENIC CHEMOTHERAPY PROTOCOLS

**All Highly Emetogenic Chemotherapy Protocols and Pre-Printed Orders** have been revised to be consistent with the SCNAUSEA protocol to include aprepitant as part of the premedications. These highly emetogenic protocols include all regimens with cumulative cisplatin doses  $\geq 50 \text{ mg/m}^2$  per treatment cycle, dacarbazine and Streptozocin.

Aprepitant is funded by Pharmacare following the limited coverage Special Authority criteria ([www.health.gov.bc.ca/pharmacare/sa/criteria/restricted/aprepitant.html](http://www.health.gov.bc.ca/pharmacare/sa/criteria/restricted/aprepitant.html)).

## BENEFIT DRUG LIST

The following treatment program has been added on the benefit drug list effective 1 June 2010:

- **Carmustine** (class I) as topical therapy in cutaneous T-cell lymphoma (LYCARTOP)
- **Gemcitabine** (class II) as induction treatment of locally advanced nasopharyngeal cancer with cisplatin and gemcitabine (HNNLAPG)

## CANCER DRUG MANUAL

**Cyclosporine Monograph and Patient Handouts** (oral and injectable) have been developed. Cyclosporine is a class II drug used in the treatment of cytopenias associated with lymphoproliferative disorder of large

granular lymphocytes (LYCSPA). Expert review was provided by Dr. Joseph Connors of the BCCA Lymphoma Tumour Group. Highlights from these documents:

- polyoxyethylated castor oil is a component of the intravenous formulation and has been associated with anaphylactoid reactions
- cyclosporine is an immunosuppressant
- numerous drug interactions are possible
- cyclosporine is nephrotoxic and is not recommended in pre-existing kidney disease or in combination with other nephrotoxic drugs

Cyclosporine has now been added to the **Chemotherapy Preparation and Stability Chart**.

**Temsirolimus Monograph** has been revised to include the new indication of mantle cell lymphoma and associated dosing information.

**Bortezomib Monograph** has been revised to update pharmacokinetic information and add new dosing guidelines in hepatic impairment.

**Irinotecan Monograph** and **Patient Handout** have been revised to include information about a documented drug interaction with lopinavir-ritonavir. The Interaction section of the monograph has also been revised to include theoretical interactions involving UGT1A1 inhibition, possibly affecting other HIV protease inhibitors (e.g., atazanavir). Other mechanisms now noted for possible drug interactions include pathways involving CYP3A4, carboxyl esterase, and other drug transporters.

**Erlotinib Monograph** has been revised to include general information about management of treatment associated rash.

**Ifosfamide Monograph** has been revised to update information regarding ifosfamide-induced encephalopathy.

**Docetaxel Monograph and Handout** have been revised to include information regarding the possibility of long-term alopecia in rare cases.

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## DRUG UPDATE

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**Use of Erythropoiesis-Stimulating Agents (ESAs)** has been revised in the supportive care protocol SCESA ([www.bccancer.bc.ca/HPI/ChemotherapyProtocols/SupportiveCare](http://www.bccancer.bc.ca/HPI/ChemotherapyProtocols/SupportiveCare)) to be consistent with the safety data released by Health Canada and the US Food and Drug Administration (FDA). In cancer patients, treatment with ESAs has not been shown to increase survival, delay tumour progression or prevent recurrence, while it may adversely affect these chemotherapy treatment goals in some patients.

The safety of ESAs has previously been discussed in greater detail in the April 2007 issue of the Systemic Therapy Update ([www.bccancer.bc.ca/HPI/ChemotherapyProtocols/stupdate](http://www.bccancer.bc.ca/HPI/ChemotherapyProtocols/stupdate)) Highlights of the revised protocol include:

- Protocol code has been changed to SCESA from SCEPO to reflect the inclusion of ESAs other than epoetin (EPO)
- Patients should not receive ESAs if:
  - they have anemia secondary to malignancy in the absence of treatment with myelosuppressive chemotherapy
  - the anticipated outcome of chemotherapy is cure
  - red cell transfusion can sufficiently manage the patient's anemia

- Protocol code has been changed to SCESA from SCEPO to reflect the inclusion of ESAs other than epoetin (EPO)
- If treatment with ESAs is initiated:
  - the decision to initiate treatment with ESAs should be based on a risk/benefit assessment and discussion with the patient
  - treatment is appropriate only if the baseline hemoglobin is less than 100 g/L at the beginning of treatment OR if there is a decrease in baseline hemoglobin to less than 100 g/L during chemotherapy
  - the target hemoglobin is 120 g/L; if this hemoglobin is exceeded, the ESA dose should be held
  - the lowest dose of ESAs needed to avoid transfusion should be used
  - ESAs should be discontinued after completion of chemotherapy

Submitted by:

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**Tykerb™ Patient Assistance Program** will end on 1 June for patients without third party insurance coverage. Only patients already with the program will continue to receive compassionate lapatinib.

**LIST OF NEW AND REVISED PROTOCOLS, PRE-PRINTED ORDERS AND PATIENT HANDOUTS**

**BC Cancer Agency 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. Protocol codes for treatments requiring “Compassionate Access Program” (previously Undesignated Indications Request) approval are prefixed with the letter **U**.

**NEW PROTOCOLS, PPPOs AND PATIENT HANDOUTS (AFFECTED DOCUMENTS ARE CHECKED):**

CODE	Protocol	PPPO	Patient Handout	Protocol Title
HNAVFUP	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Advanced Head and Neck Cancer Using Cisplatin and Fluorouracil
HNNAVFUP	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Advanced Nasopharyngeal Cancer using Cisplatin and Fluorouracil
HNNLAPG	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Induction Treatment Of Locally Advanced Nasopharyngeal Cancer With Cisplatin And Gemcitabine
LYCARTOP	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Topical Carmustine in Cutaneous T-cell Lymphoma
SCESA	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Guidelines for Selecting and Monitoring Oncology Patients using Erythropoiesis-Stimulating Agents (ESAs) (Epoetin and Darbepoetin)

**REVISED PROTOCOLS, PPPOs AND PATIENT HANDOUTS (AFFECTED DOCUMENTS ARE CHECKED):**

CODE	Protocol	PPPO	Patient Handout	Changes	Protocol Title
BRAJTR	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<i>Minor typo corrected</i>	Adjuvant Therapy for Breast Cancer Using Trastuzumab (HERCEPTIN®) Following the Completion of Chemotherapy (Sequential)
BRLAACDT	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<i>Treatment section clarified</i>	Treatment of Locally Advanced Breast Cancer using Doxorubicin and Cyclophosphamide followed by Docetaxel (TAXOTERE®) and Trastuzumab
GOOVIPPC	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<i>Title revised, Eligibility expanded</i>	Primary Treatment of Stage III less than or equal to 1 cm Visible Residual Invasive Epithelial Ovarian Cancer or Stage I Grade 3 or Stage II Grade 3 Papillary Serous Ovarian Cancer Using Intravenous and Intraperitoneal Paclitaxel and Intraperitoneal Carboplatin
HNAVPG	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<i>Protocol code and antiemetics revised</i>	Treatment of Locoregionally Recurrent and/or Metastatic Nasopharyngeal Cancer with Cisplatin and Gemcitabine
HNFUP	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<i>Replaced by HNAVFUP and HNNAVFUP</i>	Therapy for Advanced Head and Neck Cancer using Cisplatin and Fluorouracil
HNNAVPG	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<i>Replacing HNAVPG</i>	Treatment of Locoregionally Recurrent and/or Metastatic Nasopharyngeal Cancer with Cisplatin and Gemcitabine
LYFLUDR	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<i>Premedications clarified</i>	Treatment of Chronic Lymphocytic Leukemia or Prolymphocytic Leukemia with Fludarabine and Rituximab
LYGDP	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<i>Premedications revised, labs clarified for split dosing of cisplatin</i>	Treatment of Lymphoma with Gemcitabine, Dexamethasone and Cisplatin (GDP)
LYRITUX	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<i>Return appointment booking clarified</i>	Treatment of Lymphoma with single agent Rituximab
LYRITZ	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<i>Duration of rituximab infusion revised</i>	Palliative Therapy For Lymphoma Using Radioimmunotherapy: Rituximab-Priming for Ibritumomab <sup>90</sup> Y (ZEVALIN®)
LYABVD	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<i>Timing of pre-treatment labs, antiemetics, tests modified</i>	Treatment of Hodgkin's disease with Doxorubicin, Bleomycin, Vinblastine and Dacarbazine
LYCVPR	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<i>Eligibility clarified</i>	Treatment of Advanced Indolent Lymphoma using Cyclophosphamide, Vincristine, Prednisone and Rituximab (CVP-R)
LYFLUDR	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<i>Eligibility clarified</i>	Treatment of Chronic Lymphocytic Leukemia or Prolymphocytic Leukemia with Fludarabine and Rituximab
USAAVGEMD	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<i>Starting dose clarified</i>	Second Or Third Line Therapy For Soft Tissue Sarcomas Using Gemcitabine And Docetaxel
SADITC	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<i>Premedications revised, dose modifications clarified</i>	High Dose Single Agent Dacarbazine (DTIC) for Metastatic Soft Tissue Sarcoma

## Emetogenic potential revised in protocol and aprepitant added to Premedications

<b>CODE</b>	<b>Protocol Title</b>
<b>CNCCV</b>	Adjuvant Lomustine, Cisplatin And Vincristine In Adult High-Risk Medulloblastoma Or Other Primitive Neuroectodermal Tumour
<b>GIENDO2</b>	Palliative Therapy for Pancreatic Endocrine Tumours Using Streptozocin and Doxorubicin
<b>GIGAVECC</b>	Palliative Therapy For Metastatic Or Locally Advanced Gastric Or Esophagogastric Cancer Using Epirubicin, Cisplatin And Capecitabine
<b>GIGAVECF</b>	Palliative Therapy for Metastatic or Locally Advanced Gastric, Esophagogastric Cancer Using Epirubicin, Cisplatin and Infusional 5-Fluorouracil
<b>UGIGDCF</b>	Palliative Treatment of Metastatic or Locally Advanced Gastric, Esophagogastric Junction, or Esophageal Adenocarcinoma using with Docetaxel, Cisplatin and Infusional Fluorouracil
<b>GIGECC</b>	Perioperative Treatment Of Resectable Adenocarcinoma Of The Stomach, Gastroesophageal Junction Or Lower 1/3 Esophagus Using Epirubicin, Cisplatin And Capecitabine
<b>GIGEFC</b>	Perioperative Treatment Of Resectable Adenocarcinoma Of The Stomach, Gastroesophageal Junction Or Lower 1/3 Esophagus Using Epirubicin, Cisplatin And Infusional Fluorouracil
<b>GOSMCCRT</b>	Treatment Of Small Cell Or Neuroendocrine Carcinoma Of Gynecologic System Origin Using Paclitaxel, Cisplatin, Etoposide And Carboplatin With Radiation
<b>GOBEP</b>	Therapy Of Non-Dysgerminomatous Ovarian Germ Cell Cancer Using Bleomycin, Etoposide And Cisplatin
<b>GOEP</b>	Therapy of Dysgerminomatous Ovarian Germ Cell Cancer Using Cisplatin and Etoposide
<b>GOOVCIS</b>	Therapy for Invasive Epithelial Ovarian Cancer using Cisplatin
<b>UGUAJPG</b>	Adjuvant Therapy For Urothelial Carcinoma Using Cisplatin And Gemcitabine
<b>GUAVPG</b>	Palliative Therapy For Urothelial Carcinoma Using Cisplatin And Gemcitabine
<b>GUBEP</b>	Curative Therapy For Germ Cell Cancer Using Bleomycin, Etoposide And Cisplatin

<b>CODE</b>	<b>Protocol Title</b>
<b>GUEP</b>	Therapy For Nonseminoma Germ Cell Cancer Using Etoposide-Cisplatin
<b>GUMVAC</b>	Therapy For Transitional Cell Cancers Of The Urothelium Using Methotrexate, Vinblastine, Doxorubicin And Cisplatin
<b>UGUNAJPG</b>	Neo-Adjuvant Therapy For Urothelial Carcinoma Using Cisplatin And Gemcitabine
<b>UGUTIP</b>	Therapy For Relapsed Testicular Germ Cell Cancer Using Paclitaxel, Ifosfamide And Cisplatin (TIP)
<b>GUVEIP</b>	Consolidation/ Salvage Treatment for Germ Cell Cancer Using Vinblastine, Cisplatin, Ifosfamide and Mesna
<b>GUVIP2</b>	Nonseminoma Consolidation/Salvage Protocol using Etoposide, Cisplatin, Ifosfamide, Mesna
<b>LUAJNP</b>	Adjuvant Cisplatin And Vinorelbine Following Resection Of Non-Small Cell Lung Cancer
<b>LUAVDC</b>	First-Line Treatment of Advanced Non-Small Cell Lung Cancer (NSCLC) with Cisplatin and Docetaxel
<b>LUAVPG</b>	Treatment of Advanced Non-Small Cell Lung Cancer (NSCLC) with Platinum and Gemcitabine
<b>LUMMPG</b>	Treatment Of Malignant Mesothelioma With Cisplatin And Gemcitabine
<b>LUMMPP</b>	Treatment of Malignant Mesothelioma with Platinum and Pemetrexed
<b>ULUOTPAC</b>	Treatment of Thymoma with Platinum, Doxorubicin and Cyclophosphamide
<b>SAAJADIC</b>	Therapy for soft tissue sarcoma using Doxorubicin and Dacarbazine (DTIC)
<b>SAAVADIC</b>	Therapy for advanced soft tissue sarcoma using Doxorubicin and Dacarbazine (DTIC)
<b>SMDTIC</b>	Therapy for Metastatic Malignant Melanoma Using High Dose Single Agent Dacarbazine (DTIC)

## WEBSITE RESOURCES AND CONTACT INFORMATION

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CANCER DRUG MANUAL	<a href="http://www.bccancer.bc.ca/cdm">www.bccancer.bc.ca/cdm</a>
CANCER MANAGEMENT GUIDELINES	<a href="http://www.bccancer.bc.ca/CaMgmtGuidelines">www.bccancer.bc.ca/CaMgmtGuidelines</a>
CANCER CHEMOTHERAPY PROTOCOLS, PRE-PRINTED ORDERS, PROTOCOL PATIENT HANDOUTS	<a href="http://www.bccancer.bc.ca/ChemoProtocols">www.bccancer.bc.ca/ChemoProtocols</a>
SYSTEMIC THERAPY PROGRAM POLICIES	<a href="http://www.bccancer.bc.ca/HPI/ChemotherapyProtocols/Policies">www.bccancer.bc.ca/HPI/ChemotherapyProtocols/Policies</a>
SYSTEMIC THERAPY UPDATE	<a href="http://www.bccancer.bc.ca/HPI/ChemotherapyProtocols/stupdate">www.bccancer.bc.ca/HPI/ChemotherapyProtocols/stupdate</a>

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