

## For Health Professionals Who Care for Cancer Patients

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#### Resources and Contact Information

## Editor's Choice

### New Programs

The BC Cancer Provincial Systemic Therapy Program has approved the following new treatment programs effective 01 February 2022. Full details of all treatment programs are available in the [Chemotherapy Protocols](#) section of the BC Cancer website.

#### Gastrointestinal

**First-Line Pembrolizumab for dMMR/MSI-H Metastatic Colorectal Cancer (UGIAVPEM, UGIAVPEM6)** — The BC Cancer Gastrointestinal Tumour Group is introducing pembrolizumab for mismatch repair deficient (dMMR) or microsatellite instability-high (MSI-H) metastatic colorectal cancer. The MMR system is a DNA repair mechanism that participates in correcting replication-associated errors. Failure to repair errors allows mismatch mutations to persist, particularly in regions of repetitive DNA known as microsatellites, giving rise to the phenomenon of MSI. Pembrolizumab is the first agent funded specifically for dMMR/MSI-H metastatic colorectal cancer and requires BC Cancer Compassionate Access Program (CAP) approval. Pembrolizumab is administered following a 3-weekly or 6-weekly dosing schedule.

## Editor's Choice

**Irinotecan and Raltitrexed for Metastatic Colorectal Cancer in Patients Intolerant to Fluorouracil or Capecitabine (GIAVRALIR)** — This protocol joins GIAVRALOX as a treatment option for stage IV colorectal cancer patients with documented intolerance to fluorouracil or capecitabine, or with known or suspected dihydropyrimidine dehydrogenase (DPD) deficiency. Treatment is continued until disease progression or unacceptable toxicity.

### **Lymphoma — Chronic Lymphocytic Leukemia (CLL) and Small Lymphocytic Lymphoma (SLL)**

**Acalabrutinib for Relapsed/Refractory CLL or SLL (LYACAL)** — The BC Cancer Lymphoma and Myeloma Tumour Group is introducing acalabrutinib, a highly-selective Bruton's tyrosine kinase inhibitor, in relapsed or refractory chronic lymphocytic leukemia (CLL) or small lymphocytic lymphoma (SLL). In this setting, patients must have received at least one prior systemic therapy drug or treatment protocol, and have symptomatic disease requiring therapy. Patients are eligible to receive either acalabrutinib (ULYACAL), ibrutinib (LYIBRU) or idelalisib with rituximab (LYIDELAR), but not their sequential use. If ibrutinib is discontinued for any reason other than disease progression, acalabrutinib may be considered for subsequent treatment; this option can be considered at any time after ibrutinib has been discontinued.

**Acalabrutinib for Previously Untreated CLL or SLL (ULYFACAL)** — The BC Cancer Lymphoma and Myeloma Tumour Group is also implementing acalabrutinib in the first-line setting. Eligibility for this treatment program includes no prior therapy, and either high-risk disease (e.g., chromosome 17p deletion, TP53 mutation and/or unmutated immunoglobulin heavy chain variable region [IGHV] status), or ineligibility for fludarabine-cyclophosphamide-rituximab (FCR). Acalabrutinib provides a treatment alternative to ibrutinib; patients discontinuing ibrutinib (ULYFIBRU) due to intolerance may switch to acalabrutinib with BC Cancer CAP approval.

**Venetoclax and Obinutuzumab for Previously Untreated CLL or SLL (LYVENOB)** — The BC Cancer Lymphoma and Myeloma Tumour Group is implementing combination treatment with venetoclax and obinutuzumab for patients with previously untreated CLL or SLL. The dosing schedules of both obinutuzumab and venetoclax are complex; four PPPOs have been created to facilitate treatment based on the cycle number and the patient's risk for tumour lysis syndrome (TLS). The differing cycle lengths for cycles 1 and 2 allow for assessment and monitoring of TLS with initiation of obinutuzumab and prior to initiation of venetoclax. Infusion-related reactions are common with obinutuzumab, and patients with a high tumour burden may be at an increased risk of severe reactions; TLS can occur within 12-24 hours after the first obinutuzumab infusion. To significantly reduce the risk of TLS, the dose of venetoclax must be increased gradually according to a ramp-up schedule. More information about TLS is available in the September 2019 [Systemic Therapy Update](#).

## Revised Programs

### **Gynecologic Oncology**

**Primary Treatment of Advanced or Recurrent Non-Small Cell Cancer of the Cervix (GOCXCAD, GOCXCAT, GOCXCATB)** — The BC Cancer Gynecologic Oncology Tumour Group is updating the eligibility for carboplatin-taxane-based treatment protocols in patients with advanced or recurrent non-small cell cancer of the cervix. Moving forward, patients with advanced or recurrent non-small cell cancer of the vulva or vagina will also be eligible for primary treatment using the GOCXCAD, GOCXCAT and GOCXCATB protocols.

## BCG for Intravesical Instillation

Until recently, *Tice* BCG (OncoTICE) has been the only BCG strain available in Canada. A second strain of BCG, *Russian* BCG-I (VERITY-BCG), received conditional Health Canada approval last year. To improve the availability of BCG during times of drug shortage, BC Cancer is adding VERITY-BCG to the [Benefit Drug List](#) as of 01 February 2022, as an alternate to the current OncoTICE brand. Note that OncoTICE should continue as the default brand and that VERITY-BCG is to be used when OncoTICE is not available.

### **BCG brands and dosing**

BCG dosing is based on the BCG strain, and differs between brands. In addition, the amount of BCG per vial differs between brands. Although the BCG dose may be expressed in milligrams and/or colony forming units (CFU), relying on CFU or number of vials alone can lead to confusion. **Therefore, when prescribing BCG for intravesical instillation, it is imperative that the brand and dose (in milligrams) are specified.** A patient should ideally receive all induction and maintenance therapy with the same BCG strain, but switching strains is recommended if necessary to ensure administration of a full dose according to the dosing schedule. A comparison of OncoTICE and VERITY-BCG is presented in the following table:

	<b>BCG (OncoTICE)</b>	<b>BCG (VERITY-BCG)</b>
<b>BCG strain</b>	<i>Tice</i> strain 1 to 8 x 10 <sup>8</sup> CFU per vial	<i>Russian</i> BCG-I strain 1 to 8 x 10 <sup>8</sup> CFU per vial
<b>Full dose</b>	50 mg (1 x 50 mg vial)	80 mg (2 x 40 mg vials)
<b>How supplied</b>	50 mg vials (one vial per carton)	40 mg vials (outer carton contains two monocartons – each monocarton contains one 40 mg vial)

CFU = colony forming units; **References:** BC Cancer Drug Manual<sup>®</sup> BCG Monograph; BC Cancer Chemotherapy Preparation and Stability Chart

### **Prescribing BCG for non-muscle-invasive bladder cancer (NMIBC)**

Bladder Cancer Canada recently released a [consensus statement](#) for physicians who prescribe treatment for NMIBC, reproduced below.<sup>1</sup> The BC Cancer GUBCG protocol has been updated accordingly, including the protocol title: **Therapy for High- or Intermediate-Risk Non-Muscle-Invasive Bladder Cancer using BCG**

The Medical Advisory Board of Bladder Cancer Canada, with endorsement by the Canadian Urological Association (CUA), has reviewed and supports the following suggestions:

- Every patient in need of BCG therapy **should receive full dose BCG** as per [CUA guidelines](#)<sup>2</sup>
  - Patients with high-risk NMIBC should receive full dose BCG for 6 weeks of induction and 3 years of maintenance therapy
  - When BCG is administered to patients with intermediate-risk NMIBC, full dose BCG for 6 weeks of induction and 1 year of maintenance therapy is recommended
- Patients should ideally receive all treatments with a single strain of BCG. However, if supply of one BCG strain is limited, patients should be switched to the other strain if necessary to ensure that full dose BCG is administered for the recommended duration of maintenance therapy
- VERITY-BCG is not approved by Health Canada for the treatment of carcinoma in situ (CIS) and its use should be limited to papillary NMIBC (Ta/T1) without evidence of CIS. Specifically: “VERITY-BCG is indicated as an adjuvant therapy after transurethral resection of a primary or relapsing superficial papillary urothelial cell carcinoma of the bladder stage Ta (grade 2 or 3) or T1 (grade 1, 2, or 3), without concomitant CIS. It is only recommended for stage Ta grade 1 papillary tumours, when there is judged to be a high risk (>50%) of tumour recurrence.”

### Preparation of BCG doses

BC Cancer has updated the documents that previously outlined the preparation of partial doses of OncoTICE inside and outside of a biological safety cabinet (BSC); preparation outside of a BSC is considered below the recommended safe handling standard and is only provisioned for situations where a non-hazardous drug is needed in an emergency for immediate patient administration. Therefore, the updated OncoTICE documents now differentiate between preparation using a Closed System Drug Transfer Device (CSTD) and not using a CSTD, rather than differentiating between preparation inside and outside of a BSC. BC Cancer has also created new BCG preparation documents for VERITY-BCG. The updated and new BCG preparation documents, available on the [BC Cancer website](#), are as follows:

1. BCG (OncoTICE) Preparation Instructions: Preparation of a Full Dose of OncoTICE and Dividing a Full Dose Into Three Equal Doses using the ChemoLock™ Closed System Drug Transfer Device
2. BCG (OncoTICE) Preparation Instructions: Preparation of a Full Dose of OncoTICE and Dividing a Full Dose Into Three Equal Doses NOT using a Closed System Drug Transfer Device
3. BCG (VERITY-BCG) Preparation Instructions: Preparation of a Full Dose and a Half Dose of VERITY-BCG using the ChemoLock™ Closed System Drug Transfer Device
4. BCG (VERITY-BCG) Preparation Instructions: Preparation of a Full Dose and a Half Dose of VERITY-BCG NOT using a Closed System Drug Transfer Device

Questions about BCG preparation may be directed to the BC Cancer Pharmacy Oncology Certification Program team at [rxchemocert@bccancer.bc.ca](mailto:rxchemocert@bccancer.bc.ca).

### Medication safety considerations

To reduce the risk of potential errors in prescribing or in the selection of BCG brands, the following mitigation strategies are suggested:

	Mitigation strategies
<b>Prescribing</b>	Specify the <b>brand and dose in milligrams</b>
<b>Product storage</b>	Physical separation in the pharmacy: <ul style="list-style-type: none"><li>• Store the two brands in distinct bins, in different locations/shelves<ul style="list-style-type: none"><li>○ Consider space, physical layout and workflow of storage area</li></ul></li><li>• Create visible alerts to assist in product selection</li></ul>
<b>Product differentiation</b>	Distinguish the two brands for order entry and on the drug label
<b>Adding redundancy</b>	Consider adding an independent check to processes (drug gathering, mixing, checking, administering)
<b>Raising awareness</b>	Educate staff involved in handling both brands in the medication management process

#### References:

1. Black P, Kassouf W and Kulkarni G. Bladder Cancer Canada consensus statement on integration of TICE and VERITY-BCG. 17 Dec 2021. Available at <https://bladdercancercanada.org/en/bcc-consensus-statement-on-integration-of-tice-and-verity-bcg/>
2. Bhindi B, Kool R, Kulkarni GS, et al. Canadian Urological Association guideline on the management of non-muscle-invasive bladder cancer – full-text. *Can Urol Assoc J* 2021;15(8):E424-57. <https://doi.org/10.5489/cuaj.7367>

## Provincial Systemic Therapy Program

All policies and procedures are on the Shared Health Organizations Portal (SHOP) [BC Cancer page](#).

### Updated: High Alert Medications Policy

The **BC Cancer Provincial High Alert Medications Policy** has been updated effective 01 February 2022:

Appendix	Update
B	Scope of BC Cancer High Alert Oncology Medication Evaluation clarified
D	Minimum storage requirements for neuromuscular blocking agents in anesthesia work stations added

## Drug Shortages

The following are updates of drug supply shortages in BC. Full details about new, updated or resolved drug shortages, including recommended treatment alternatives, are found in the *Briefing Notes* and e-mail communications previously circulated to BC Cancer and the Community Oncology Network (CON).

### New

#### **Thyrotropin alfa (THYROGEN)**

*Adapted from BC Cancer Briefing Notes: 21 January 2022 & 31 January 2022*

There is a short term shortage of thyrotropin alfa at the level of the manufacturer. Remaining supplies are limited and stock is not expected to be available until the week of 14 February 2022. If a patient is scheduled for treatment up to and including that week, the regional cancer pharmacy should be contacted to confirm supply availability.

Thyrotropin alpha is used at BC Cancer for radioiodine imaging and treatment in patients with thyroid cancer. If supply is not available, consider if an alternative such as levothyroxine withdrawal can be used, or delay treatment until thyrotropin alfa is available.

### Updated

#### **Paclitaxel NAB (ABRAXANE)**

*Adapted from BC Cancer Briefing Note: 10 January 2022*

BC Cancer Pharmacy was advised in September of a paclitaxel NAB shortage due to a global manufacturing issue. The manufacturer has reported that they are working on getting the manufacturing site back to full operations, although the timeline to remove the 60% purchase allocation is unknown.

As supplies continue to be limited, the regional cancer pharmacy should be contacted prior to initiating new patients on treatment. The Gastrointestinal Tumour Group also advises that, if supplies are severely limited, clinicians may consider omitting the day 8 paclitaxel NAB dose in the GIPGEMABR protocol, particularly in patients who have received more than 6 cycles.

All documents are available in the [Cancer Drug Manual<sup>©</sup>](#) on the BC Cancer website.

### Revised Documents

#### **Acalabrutinib Monograph and Patient Handout**

*Dosage Guidelines:* bolding/italicizing BC Cancer usual dose; addition of new protocols (LYACAL, ULYFACAL)

#### **BCG Monograph and Chemotherapy Preparation and Stability Chart**

*Common Trade Name(s):* added Verity brand name; deleted Canadian and US brands no longer available

*Supply and Storage:* added Verity brand; deleted Canadian brand no longer available

*Solution Preparation and Compatibility:* revised filter information to make brand-specific

*Dosage Guidelines:* revised intravesical dosing to include brand-specific information; redefined “dose” to align dosing with GUBCG protocol

**Chemotherapy Preparation and Stability Chart:** added Verity brand; updated Merck brand; deleted brands no longer marketed in Canada

#### **Cabozantinib Monograph**

*Dosage Guidelines:* added dosing range to align dosing with UGICABO protocol

#### **Paclitaxel NAB Chemotherapy Preparation and Stability Chart**

Added German supply of ABAXANE

#### **Pemetrexed Monograph and Patient Handout**

*Cautions:* added bullet regarding vitamin supplementation and dexamethasone premedication

*Side Effects:* added serious skin toxicities to table and updated paragraphs to include more details about vitamin supplementation and dexamethasone premedication

*Dosage Guidelines:* deleted protocol-specific dosing information pertaining to vitamin supplementation and dexamethasone premedication

**Patient Handout:** deleted protocol-specific dosing information

#### **Trastuzumab Deruxtecan**

*Supply and Storage:* added “protect from light” as storage instruction for intact vial

#### **Vincristine Monograph and Chemotherapy Preparation and Stability Chart**

*Supply and Storage:* added Pfizer and Teva brands; deleted stability information

**Chemotherapy Preparation and Stability Chart:** added Pfizer brand

### Retired Documents

The **Quinagolide Monograph** and **Patient Handout** have been retired. Quinagolide has been deleted from the **Cancer Drug Manual Drug Index** and the **Auxiliary Label List**.

## BC Cancer Benefit Drug List

### New Programs

The following treatment programs have been added to the [Benefit Drug List](#) effective 01 February 2022:

Protocol Title	Protocol Code	Benefit Status
First-Line Treatment of dMMR/MSI-H Metastatic Colorectal Cancer using <b>Pembrolizumab</b>	<b>UGIAVPEM</b>	Restricted
First-Line Treatment of dMMR/MSI-H Metastatic Colorectal Cancer using 6-Weekly <b>Pembrolizumab</b>	<b>UGIAVPEM6</b>	Restricted
Palliative Therapy of Metastatic Colorectal Cancer using <b>Irinotecan</b> and <b>Raltitrexed</b> in Patients Intolerant to Fluorouracil or Capecitabine	<b>GIAVRALIR</b>	Class I
Treatment of Relapsed/Refractory Chronic Lymphocytic Leukemia or Small Lymphocytic Lymphoma using <b>Acalabrutinib</b>	<b>LYACAL</b>	Class I
Treatment of Previously Untreated Chronic Lymphocytic Leukemia or Small Lymphocytic Lymphoma using <b>Acalabrutinib</b>	<b>ULYFACAL</b>	Restricted
Treatment of Previously Untreated Chronic Lymphocytic Leukemia or Small Lymphocytic Lymphoma using <b>Venetoclax</b> and <b>Obinutuzumab</b>	<b>LYVENOB</b>	Class I

### Revised Programs

The following treatment programs have been revised on the [Benefit Drug List](#) effective 01 February 2022:

Protocol Title	Protocol Code	Benefit Status
Therapy of Advanced Breast Cancer using <b>Palbociclib</b> and <b>Aromatase Inhibitor</b> with or without <b>LHRH Agonist</b>	<b>BRAVPALAI</b>	Class I <i>(previously Restricted)</i>
Therapy of Advanced Breast Cancer using <b>Palbociclib</b> and <b>Fulvestrant</b> with or without <b>LHRH Agonist</b>	<b>BRAVPBFLV</b>	Class I <i>(previously Restricted)</i>
Therapy of Advanced Breast Cancer using <b>Ribociclib</b> and <b>Fulvestrant</b> with or without <b>LHRH Agonist</b>	<b>BRAVRBFLV</b>	Class I <i>(previously Restricted)</i>
Therapy of Advanced Breast Cancer using <b>Ribociclib</b> and <b>Aromatase Inhibitor</b> with or without <b>LHRH Agonist</b>	<b>BRAVRIBAI</b>	Class I <i>(previously Restricted)</i>

## BC Cancer Benefit Drug List

### Deleted Programs

The following treatment program has been deleted from the [Benefit Drug List](#) effective 01 February 2022:

Protocol Title	Protocol Code	Benefit Status
Suppressive Therapy for Pituitary Adenomas using <b>Quinagolide</b>	<b>CNQUIN</b>	Deleted (alternate protocols: CNB, CNCAB)

### NEW Protocols, PPPOs and Patient Handouts (new documents checked )

Protocol Code	Protocol Title	Protocol	PPPO	Handout
<b>UGIAVPEM</b>	First-Line Treatment of dMMR/MSI-H Metastatic Colorectal Cancer using Pembrolizumab	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>UGIAVPEM6</b>	First-Line Treatment of dMMR/MSI-H Metastatic Colorectal Cancer using 6-Weekly Pembrolizumab	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>GI AVRALIR</b>	Palliative Therapy of Metastatic Colorectal Cancer using Irinotecan and Raltitrexed in Patients Intolerant to Fluorouracil or Capecitabine	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>LYACAL</b>	Treatment of Relapsed/Refractory Chronic Lymphocytic Leukemia or Small Lymphocytic Lymphoma using Acalabrutinib	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>ULYFACAL</b>	Treatment of Previously Untreated Chronic Lymphocytic Leukemia or Small Lymphocytic Lymphoma using Acalabrutinib	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>LYVENOB</b>	Treatment of Previously Untreated Chronic Lymphocytic Leukemia or Small Lymphocytic Lymphoma using Venetoclax and Obinutuzumab	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <b>Four PPPOs:</b> Cycle 1, Cycle 2 High Risk, Cycle 2 Low-Med Risk, Cycles 3-12	<input checked="" type="checkbox"/>



## Highlights of New & Revised Protocols, PPPOs 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 (CAP) approval are prefixed with the letter **U**.

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

Protocol Code	Protocol Title	Protocol	PPPO	Handout
<b>BR   Breast</b>				
<b>BRAJANAS</b>	Neoadjuvant or Adjuvant Therapy for Breast Cancer using Anastrozole in Postmenopausal Women	<i>Treatment clarified</i>	----	----
<b>BRAJEXE</b>	Neoadjuvant or Adjuvant Therapy for Breast Cancer using Exemestane in Postmenopausal Women	<i>Treatment clarified</i>	----	----
<b>BRAJLET</b>	Neoadjuvant or Adjuvant Therapy for Breast Cancer using Letrozole in Postmenopausal Women	<i>Treatment clarified</i>	----	----
<b>UBRAVPALAI</b>	Therapy of Advanced Breast Cancer using Palbociclib and Aromatase Inhibitor with or without LHRH Agonist	<i>Protocol Code revised (U removed); Eligibility revised (CAP requirement removed)</i>	<i>Protocol Code revised; CAP requirement removed</i>	----
<b>UBRAVPBFLV</b>	Therapy of Advanced Breast Cancer using Palbociclib and Fulvestrant with or without LHRH Agonist	<i>Protocol Code revised (U removed); Eligibility revised (CAP requirement removed)</i>	<i>Protocol Code revised; CAP requirement removed</i>	----
<b>UBRAVRBFLV</b>	Therapy of Advanced Breast Cancer using Ribociclib and Fulvestrant with or without LHRH Agonist	<i>Protocol Code revised (U removed); Eligibility revised (CAP requirement removed)</i>	<i>Protocol Code revised; CAP requirement removed</i>	----
<b>UBRAVRIBAI</b>	Therapy of Advanced Breast Cancer using Ribociclib and Aromatase Inhibitor with or without LHRH Agonist	<i>Protocol Code revised (U removed); Eligibility revised (CAP requirement removed)</i>	<i>Protocol Code revised; CAP requirement removed</i>	----
<b>BRAVTRVIN</b>	Palliative Therapy for Metastatic Breast Cancer using Trastuzumab and Vinorelbine	----	<i>Pretreatment metrics updated</i>	----
<b>CN   Neuro-Oncology</b>				
<b>CNAJ12TZRT</b>	Concomitant (Dual Modality) and 12 Cycles of Adjuvant Temozolomide for Newly Diagnosed Astrocytomas and Oligodendrogliomas with Radiation	<i>Eligibility and Exclusions clarified; Contact Physician revised</i>	----	----
<b>CNAJTZRT</b>	Concomitant (Dual Modality) and Adjuvant Temozolomide for Newly Diagnosed Malignant Gliomas with Radiation	<i>Eligibility and Exclusions clarified; Contact Physician revised</i>	----	----

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

Protocol Code	Protocol Title	Protocol	PPPO	Handout
CNB	Suppressive Therapy for Pituitary Adenomas using Bromocriptine	<i>Institution name updated; Eligibility and Exclusions clarified; Contact Physician revised</i>	----	----
CNBEV	Palliative Therapy for Recurrent Malignant Gliomas using Bevacizumab with or without Concurrent Etoposide or Lomustine	<i>Eligibility and Exclusions clarified; Contact Physician revised</i>	----	----
CNCAB	Suppressive Therapy for Pituitary Adenomas using Cabergoline	<i>Institution name updated; Eligibility and Exclusions clarified; Contact Physician revised</i>	----	----
CNCARV	Protocol Summary for Carboplatin and Etoposide in the Treatment of Recurrent Ependymoma and Oligodendroglioma	<i>Eligibility and Tests clarified; Contact Physician revised</i>	----	----
CNCCNU	Lomustine (CCNU) for Treatment of Recurrent Malignant Brain Tumours	<i>Eligibility and Tests clarified; Contact Physician revised</i>	----	----
CNCCV	Adjuvant Lomustine, Cisplatin and Vincristine in Adult High-Risk Medulloblastoma or other Primitive Neuro-Ectodermal Tumour (PNET)	<i>Eligibility and Exclusions clarified; Contact Physician revised</i>	----	----
CNELTZRT	Elderly Newly Diagnosed Glioma Patient with Concurrent and Adjuvant Temozolomide and Radiation Therapy	<i>Eligibility and Exclusions clarified; Contact Physician revised</i>	----	----
CNETO	Palliative Treatment of Patients with Recurrent Malignant Gliomas and Ependymoma using Low-Dose Etoposide	<i>Eligibility clarified; Contact Physician revised</i>	----	----
CNLAN	Treatment of Growth Hormone-Secreting Pituitary Adenoma using Lanreotide	<i>Eligibility and Exclusions clarified; Contact Physician revised</i>	----	----
CNMODPCV	Modified PCV Chemotherapy of Brain Tumours using Procarbazine, Lomustine (CCNU) and Vincristine	<i>Eligibility clarified; Contact Physician revised</i>	----	----
CNOCTLAR	Treatment of Growth Hormone-Secreting Pituitary Adenoma using Octreotide	<i>Eligibility and Exclusions clarified; Contact Physician revised</i>	----	----
CNPROC	Standard Procarbazine for Second-Line Treatment of Recurrent Brain Tumour	<i>Eligibility clarified; Contact Physician revised</i>	----	----

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

Protocol Code	Protocol Title	Protocol	PPO	Handout
<b>CNTEM60</b>	Therapy for Newly Diagnosed Malignant Brain Tumours with MGMT Methylation in Elderly Patients using Temozolomide	<i>Eligibility and Exclusions clarified; Contact Physician revised</i>	----	----
<b>CNTEMOZ</b>	Therapy for Malignant Brain Tumours using Temozolomide	<i>Eligibility and Exclusions clarified; Contact Physician revised</i>	----	----
<b>CNTEMOZMD</b>	Malignant Brain Tumours using Metronomic Dosing of Temozolomide	<i>Eligibility and Exclusions clarified; Contact Physician revised</i>	----	----
<b>CNTMZETO</b>	Therapy for Recurrent Malignant Brain Tumours using Temozolomide and Etoposide	<i>Eligibility and Exclusions clarified; Contact Physician revised</i>	----	----
<b>GI   Gastrointestinal</b>				
<b>GIRAJCOX</b>	Adjuvant or Neoadjuvant Combination Chemotherapy for Stage III Rectal Cancer using Oxaliplatin and Capecitabine	<i>Number of treatment cycles clarified</i>	----	----
<b>GIRAJFFOX</b>	Adjuvant or Neoadjuvant Combination Chemotherapy for Stage III Rectal Cancer using Oxaliplatin, Fluorouracil and Leucovorin	<i>Number of treatment cycles clarified</i>	----	----
<b>GIYTT</b>	Yttrium-90 for Transarterial Radioembolisation (TARE)	<i>Eligibility updated</i>	----	----
<b>GO   Gynecologic</b>				
<b>GOXCAD</b>	Primary Treatment of Advanced/Recurrent Non-Small Cell Cancer of the Cervix with Carboplatin and Docetaxel in Ambulatory Care Settings	<i>Eligibility updated</i>	----	----
<b>GOXCAT</b>	Primary Treatment of Advanced/Recurrent Non-Small Cell Cancer of the Cervix with Carboplatin and Paclitaxel in Ambulatory Care Settings	<i>Eligibility updated</i>	----	----
<b>GOXCATB</b>	Primary Treatment of Metastatic or Recurrent Cancer of the Cervix with Bevacizumab, Carboplatin and Paclitaxel	<i>Eligibility updated</i>	----	----
<b>GU   Genitourinary</b>				
<b>GUBCG</b>	Therapy for High- or Intermediate-Risk Non-Muscle-Invasive Superficial Transitional Cell Bladder Cancer using BCG	<i>Protocol title, institution name, Eligibility, Exclusions, Tests, Treatment and Dose Modifications updated</i>	----	----
<b>UGUMCSPABI</b>	Therapy for Metastatic Castration-Sensitive Prostate Cancer using Abiraterone and Prednisone	<i>Eligibility clarified; prednisone and dexamethasone dosing updated</i>	<i>Prednisone and dexamethasone dosing updated</i>	----

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

Protocol Code	Protocol Title	Protocol	PPO	Handout
<b>UGUPABI</b>	Palliative Therapy for Metastatic Castration-Resistant Prostate Cancer using Abiraterone and Prednisone	<i>Prednisone and dexamethasone dosing updated</i>	<i>Prednisone and dexamethasone dosing updated</i>	----
<b>LU   Lung</b>				
<b>LUAVPP</b>	First-Line Treatment of Advanced Non-Small Cell Lung Cancer with Platinum and Pemetrexed	<i>Formatting and spacing revised</i>	----	----
<b>LY   Lymphoma</b>				
<b>LYABVD</b>	Treatment of Hodgkin's Disease with Doxorubicin, Bleomycin, Vinblastine and Dacarbazine	<i>Hemoglobin transfusion threshold revised</i>	----	----
<b>LYAVDBV</b>	Treatment of Previously Untreated, Stage IV Hodgkin Lymphoma with Doxorubicin, Vinblastine, Dacarbazine and Brentuximab Vedotin	<i>Hemoglobin transfusion threshold revised</i>	----	----
<b>LYBEND</b>	Treatment of Non-Hodgkin Lymphoma with Bendamustine	<i>Eligibility and Exclusions clarified</i>	----	----
<b>LYBENDR</b>	Treatment of Non-Hodgkin Lymphoma with Bendamustine and rituximab	<i>Eligibility and Exclusions clarified</i>	----	----
<b>LYCHOP</b>	Treatment of Lymphoma with Doxorubicin, Cyclophosphamide, Vincristine and Prednisone	<i>Eligibility clarified; hemoglobin transfusion threshold revised</i>	----	----
<b>LYCHOPR</b>	Treatment of Lymphoma with Doxorubicin, Cyclophosphamide, Vincristine, Prednisone and Rituximab	<i>Eligibility clarified; hemoglobin transfusion threshold revised</i>	----	----
<b>LYCHOPRMTX</b>	Central Nervous System Prophylaxis with High-Dose Methotrexate, CHOP and Rituximab in Diffuse Large B-Cell Lymphoma	<i>Eligibility clarified; hemoglobin transfusion threshold revised</i>	----	----
<b>LYCHPBV</b>	Treatment of CD30-Positive Peripheral T-Cell Lymphoma (PTCL) with Doxorubicin, Cyclophosphamide, Prednisone (CHP) and Brentuximab Vedotin	<i>Exclusions clarified; hemoglobin transfusion threshold revised</i>	----	----
<b>LYCLLBEND</b>	Treatment of Relapsed Chronic Lymphocytic Leukemia (CLL) with Bendamustine	<i>Eligibility and Exclusions clarified</i>	----	----
<b>LYCLLBENDR</b>	Treatment of Relapsed/Refractory Chronic Lymphocytic Leukemia or Small Lymphocytic Lymphoma with Bendamustine and Rituximab	<i>Eligibility and Exclusions clarified</i>	----	----
<b>LYCLLFBR</b>	Treatment of Previously Untreated Chronic Lymphocytic Leukemia (CLL) with Bendamustine and Rituximab	<i>Eligibility and Exclusions clarified</i>	----	----
<b>LYCVPPABO</b>	Treatment of Hodgkin's Disease with Cyclophosphamide, Vinblastine, Procarbazine and Prednisone	<i>Hemoglobin transfusion threshold revised</i>	----	----

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

Protocol Code	Protocol Title	Protocol	PPPO	Handout
<b>LYOBBEND</b>	Treatment of Rituximab-Refractory Follicular Lymphoma (FL) with Obinutuzumab in Combination with Bendamustine	<i>Eligibility and Exclusions clarified</i>	<i>Premedications clarified; reference added to obinutuzumab titration table</i>	----
<b>LYOBCHLOR</b>	Treatment of Previously Untreated Chronic Lymphocytic Leukemia (CLL) or Small Lymphocytic Lymphoma with Obinutuzumab and Chlorambucil	----	<i>Premedications clarified; reference added to obinutuzumab titration table</i>	----
<b>LYRICE</b>	Treatment of Relapsed or Refractory Advanced Stage Aggressive B-Cell Non-Hodgkin's Lymphoma with Ifosfamide, Carboplatin, Etoposide and Rituximab	<i>Eligibility clarified; hemoglobin transfusion threshold revised</i>	----	----
<b>LYRITUX</b>	Treatment of Lymphoma with Single-Agent Rituximab	<i>Eligibility clarified; hemoglobin transfusion threshold revised</i>	----	----
<b>ULYVENETO</b>	Treatment of Relapsed/Refractory Chronic Lymphocytic Leukemia or Small Lymphocytic Lymphoma using Venetoclax	<i>Eligibility and Exclusions clarified; Precautions revised (HBV monitoring); TLS monitoring clarified</i>	<b>All PPPOs:</b> <i>Venetoclax administration route clarified</i>	----
<b>LYVENETOR</b>	Treatment of Relapsed/Refractory Chronic Lymphocytic Leukemia or Small Lymphocytic Lymphoma using Venetoclax and Rituximab	<i>Eligibility and Exclusions clarified; allopurinol dose revised; Precautions revised (HBV monitoring); TLS monitoring clarified</i>	<b>Ramp-up High Risk PPPO:</b> <i>Allopurinol dose revised</i> <b>All PPPOs:</b> <i>Venetoclax administration route clarified</i>	----
<b>SA   Sarcoma</b>				
<b>SADTIC</b>	High-Dose Single Agent Dacarbazine (DTIC) for Metastatic Soft Tissue Sarcoma	----	<i>Dose units clarified</i>	----
<b>SC   Supportive Care</b>				
<b>SCIMMUNE</b>	Management of Immune-Mediated Adverse Reactions to Checkpoint Inhibitor Immunotherapy	<i>Flow diagram grading and management updated; detailed grading table added</i>	----	<i>Drug names updated</i>

## Resources and Contact Information

Resource	Phone	Email / Toll Free / Fax
Systemic Therapy Update: <a href="http://www.bccancer.bc.ca/health-professionals/clinical-resources/systemic-therapy/systemic-therapy-update">www.bccancer.bc.ca/health-professionals/clinical-resources/systemic-therapy/systemic-therapy-update</a>		
Systemic Therapy Update Editor	604-877-6000 x 672649	<a href="mailto:bulletin@bccancer.bc.ca">bulletin@bccancer.bc.ca</a>
Oncology Drug Information	604-877-6275	<a href="mailto:druginfo@bccancer.bc.ca">druginfo@bccancer.bc.ca</a>
Cancer Drug Manual Editor	250-519-5500 x 693742	<a href="mailto:nbadry@bccancer.bc.ca">nbadry@bccancer.bc.ca</a>
Pharmacy Oncology Certification	250-712-3900 x 686820	<a href="mailto:rxchemocert@bccancer.bc.ca">rxchemocert@bccancer.bc.ca</a>
Nurse Educators	604-877-6000 x 672638	<a href="mailto:nursinged@bccancer.bc.ca">nursinged@bccancer.bc.ca</a>
CAP – Compassionate Access Program	604-877-6277	<a href="mailto:cap_bcca@bccancer.bc.ca">cap_bcca@bccancer.bc.ca</a> fax 604-708-2026
OSCAR – Online System for Cancer Drugs Adjudication and Reimbursement	888-355-0355	<a href="mailto:oscar@bccancer.bc.ca">oscar@bccancer.bc.ca</a> fax 604-708-2051
Manufacturer Patient Assistance Programs: <a href="http://www.bccancer.bc.ca/mpap">http://www.bccancer.bc.ca/mpap</a>		
Library/Cancer Information	604-675-8003	<a href="mailto:requests@bccancer.bc.ca">requests@bccancer.bc.ca</a> toll free 888-675-8001 x 8003
Library Document Delivery	604-675-8002	<a href="mailto:requests@bccancer.bc.ca">requests@bccancer.bc.ca</a>
Pharmacy Professional Practice	604-877-6000 x 672247	<a href="mailto:mclin@bccancer.bc.ca">mclin@bccancer.bc.ca</a>
Professional Practice, Nursing	604-877-6000 x 672623	<a href="mailto:BCcancerPPNAdmin@ehcnet.phsa.ca">BCcancerPPNAdmin@ehcnet.phsa.ca</a>
Provincial Systemic Therapy Program	604-877-6000 x 672247	<a href="mailto:mclin@bccancer.bc.ca">mclin@bccancer.bc.ca</a>
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: <a href="mailto:bulletin@bccancer.bc.ca">bulletin@bccancer.bc.ca</a>		

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