Provincial Health Services Authority

Systemic Therapy Update

Volume 25 Issue 11
November 2022

For Health Professionals Who Care for People with Cancer

Inside This Issue

Editor's Choice

Influenza Vaccine Recommendations

The **BC Cancer Influenza Vaccine Recommendations for Adults with Cancer** have been updated for the 2022-2023 influenza season. They are 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.

Updates to the influenza vaccine recommendations this year include:

Adults with cancer should be offered an age-appropriate inactivated influenza vaccine	up to 64 years of age	quadrivalent inactivated influenza vaccine
	65 years of age and older	trivalent inactivated influenza vaccine (adjuvanted)
	Resources from BC Centre for Disease Control (BCCDC):	▪ Influenza vaccines for the 2022/23 season ▪ Q&A Influenza vaccines for adults 65 years and older

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Editor's Choice

Influenza Vaccine Recommendations

Patients receiving immune checkpoint inhibitors can receive the influenza vaccine at any time	In patients receiving immune checkpoint inhibitors (PD-1, PD-L1, and CTLA-4 inhibitors alone or in combination), recent literature found that influenza vaccination does not increase the risk of immune-related adverse events (irAEs) compared to unvaccinated patients, and that the overall safety and efficacy of influenza vaccination is not substantially different than in the general population
Recommendations around the use of combination CTLA-4/PD-1 inhibitors	▪ Safety data are limited, but no new data have emerged suggesting that there is an increased risk of severe irAEs ▪ Where feasible, patients should receive influenza vaccine prior to starting treatment ▪ For patients experiencing a severe irAE, consideration should be given to deferring influenza vaccination, especially given that combination therapy is of limited duration
REMINDER	The influenza vaccine may be administered at the same time as the COVID-19 vaccine

New Programs

BC Cancer Provincial Systemic Therapy has approved the following new treatment programs effective 01 November 2022. Full details of all treatment programs are available in the Chemotherapy Protocols section of the BC Cancer website.

Breast

BRAJPNT: Paclitaxel NAB and Trastuzumab as Alternative Adjuvant Therapy for Breast Cancer — The BC Cancer Breast Tumour Group recently implemented paclitaxel NAB in the neoadjuvant or adjuvant setting for patients with previous severe hypersensitivity reaction (HSR) to paclitaxel or docetaxel (see September 2022 issue of the Systemic Therapy Update).[1-3] This indication for paclitaxel NAB is being expanded to include patients with HER2 overexpression receiving a trastuzumab-containing treatment protocol. In BRAJPNT, paclitaxel NAB and trastuzumab are repeated every 3 weeks to complete the total number of cycles in the original paclitaxel or docetaxel protocol. After the final cycle of paclitaxel NAB and trastuzumab, trastuzumab is continued to complete 17 cycles (approximately one year) of trastuzumab treatment (using BRAJTR).

Gastrointestinal

GIAJNIV: Nivolumab for Adjuvant Treatment of Resected Esophageal or Gastroesophageal Junction Cancer — The BC Cancer Gastrointestinal Tumour Group is introducing adjuvant nivolumab for the treatment of resected esophageal or gastroesophageal junction (GEJ) cancer in patients with residual pathologic disease following neoadjuvant chemoradiation. Although these patients are at high risk of disease recurrence, the standard until now has been active surveillance. Moving forward, adjuvant nivolumab represents a new standard of care for this patient population. Nivolumab should start within 16 weeks of surgery, or as soon as clinically appropriate, and is continued every 4 weeks for up to 13 cycles (approximately one year of treatment).

Approval of this treatment program is supported by the randomized, placebo-controlled, phase III CHECKMATE 577 trial that evaluated nivolumab in patients with resected esophageal or GEJ cancer and residual pathological disease post neoadjuvant chemoradiation.[4,5] Median disease-free survival was

significantly prolonged with nivolumab (22.4 months vs. 11.0 months, HR 0.69, 96.4% CI 0.56-0.86), as was the median distant metastasis-free survival (28.3 months vs. 17.6 months, HR 0.74, 95% CI 0.60-0.92). Overall, the safety profile was consistent with the known safety profile of nivolumab, with no additional safety signals identified with adjuvant nivolumab monotherapy. More details about the management of immune-mediated adverse reactions with checkpoint inhibitor immunotherapy are outlined in SCIMMUNE on the Supportive Care page in the Chemotherapy Protocols section of the BC Cancer website.

First-Line Treatment of Locally Advanced or Metastatic Esophageal, Gastroesophageal or Gastric Cancer — The BC Cancer Gastrointestinal Tumour Group is implementing two first-line treatment options for patients with locally advanced or metastatic esophageal, gastroesophageal junction (GEJ) or gastric cancer. These protocols include an oxaliplatin and fluoropyrimidine chemotherapy backbone in combination with the checkpoint inhibitor nivolumab. In both treatment protocols, the chemotherapy portion is continued until disease progression or unacceptable toxicity, and nivolumab is continued until disease progression, unacceptable toxicity or to a maximum of 2 years of treatment. These protocols offer an alternative to the oxaliplatin-fluoropyrimidine-pembrolizumab protocols recently introduced for esophageal and GEJ cancers (GIGAVCOXP, GIGAVFFOXP).

GIGAVCOXN: Oxaliplatin, Capecitabine and Nivolumab

Cycle	Oxaliplatin	Capecitabine	Nivolumab
3 weeks	130 mg/m^2	days 1-14	4.5 mg/kg

GIGAVFFOXN: Oxaliplatin, Fluorouracil, Leucovorin and Nivolumab

Cycle	Oxaliplatin	Fluorouracil/Leucovorin	Nivolumab
2 weeks	85 mg/m^2	5-FU/leucovorin bolus plus 5-FU infusion	3 mg/kg

Approval of these treatment programs is supported by the randomized, controlled phase III CHECKMATE 649 trial comparing first-line chemotherapy (oxaliplatin and fluoropyrimidine) plus nivolumab with chemotherapy alone in advanced esophageal, GEJ and gastric cancers.[6,7] Significant median overall survival (OS) and median progression-free survival (PFS) benefits were reported in all patients randomized to the nivolumab group (mOS: 13.8 months vs. 11.6 months, HR 0.80, 99.3% CI 0.68-0.94; mPFS: 7.7 months vs. 6.9 months, HR 0.77, 95% CI 0.68-0.87). The safety profile of nivolumab plus chemotherapy was consistent with the known safety profiles of the individual drugs and no new safety signals were identified. The nivolumab group reported a higher incidence of select adverse effects including gastrointestinal (40.3% vs. 33.9%), hepatic (34.1% vs. 24.3%), skin (33.5% vs. 17.9%), endocrine (15.0% vs. 1.8%) and hypersensitivity and infusion reactions (15.1% vs. 5.9%).

Leukemia

ULKMDSDC: Decitabine-Cedazuridine for Myelodysplastic Syndrome — The BC Cancer Leukemia and BMT Tumour Group is introducing decitabine-cedazuridine, an oral treatment for patients with myelodysplastic syndrome (MDS). MDS is a hematologic malignancy with highly variable survival, with transformation to AML in about half of patients. The treatment of choice for MDS is allogeneic stem cell transplantation (ASCT), however only a small proportion of patients are eligible for ASCT due to age or comorbidities. For patients with advanced disease that are transplant-ineligible, a hypomethylating agent such as azacitidine can prolong survival, reduce risk of transformation to AML and improve quality of life. For patients who are not able to travel to a centre for azacitidine subcutaneous injections, decitabine-cedazuridine offers another treatment option.[8]

Editor's Choice

Decitabine, a derivative of azacitidine, undergoes rapid metabolism by cytidine deaminase. To enhance the oral bioavailability of decitabine, it is combined with cedazuridine, a cytidine deaminase inhibitor. Decitabine-cedazuridine is available in a 35 mg-100 mg fixed-dose oral formulation. The decitabine-cedazuridine interim monograph was introduced in the March 2022 issue of the Systemic Therapy Update in the Cancer Drug Manual© section. Decitabine-cedazuridine has been evaluated in phase II and III studies, demonstrating clinical responses similar to those previously shown with subcutaneous azacitidine and intravenous decitabine. In the crossover phase of these studies, decitabine-cedazuridine demonstrated pharmacokinetic AUC equivalence to intravenous decitabine. BC Cancer Compassionate Access Program (CAP) approval is required.

ULKMRDBLIN: Blinatumomab for Treatment of Pre-B-Cell Acute Lymphoblastic Leukemia with Minimal Residual Disease — The BC Cancer Leukemia and BMT Tumour Group is implementing blinatumomab for patients with Philadelphia chromosome-negative and CD19-positive pre-B-cell acute lymphoblastic leukemia (ALL) in complete hematologic remission (CR) with minimal residual disease (MRD) positivity. Treatment with blinatumomab after CR can help patients achieve MRD negativity, leading to better outcomes for patients proceeding to ASCT. Blinatumomab is delivered by continuous intravenous infusion, initially as inpatient treatment at Vancouver General Hospital, and then transitioned to outpatient therapy delivered by CADD pump. BC Cancer Compassionate Access Program (CAP) approval is required.

Blinatumomab was assessed in this patient population in two single-arm, open-label, phase II trials (BLAST and MT-103-202) and one unpublished, observational, retrospective cohort study (Neuf).[9] After one cycle of blinatumomab, a complete MRD response was achieved in 77% (BLAST), 80% (MT103-202) and 92% (Neuf) of patients. The proportion of patients who proceeded to ASCT following blinatumomab treatment was 77.6%, 42.9% and 72%, respectively.

References

1 Sánchez-Muñoz A, Jiménez B, García-Tapiador A, et al. Cross-sensitivity between taxanes in patients with breast cancer. *Clin Transl Oncol* 2011;13(12):904-906. http://dx.doi.org/10.1007/s12094-011-0753-3

2 Gianni L, Mansutti M, Anton A, et al. Comparing neoadjuvant nab-paclitaxel vs paclitaxel both followed by anthracycline regimens in women with *ERBB2*/*HER2*-negative breast cancer – the Evaluating Treatment with Neoadjuvant Abraxane (ETNA) trial. *JAMA Oncol* 2018;4(3):302-308. http://dx.doi.org/10.1001/jamaoncol.2017.4612

3 Untch M, Jackisch C, Schneeweiss A, et al. Nab-paclitaxel versus solvent-based paclitaxel in neoadjuvant chemotherapy for early breast cancer (GeparSepto-GBG 69): a randomised, phase 3 trial. *Lancet Oncol* 2016;17(3):345-356. http://dx.doi.org/10.1016/S1470-2045(15)00542-2

4 Kelly RJ, Ajani JA, Kuzdzal J, et al. Adjuvant nivolumab in resected esophageal or gastroesophageal junction cancer. *N Engl J Med* 2021;384(13):1191-1203. http://dx.doi.org/10.1056/NEJMoa2032125

5 CADTH Reimbursement Recommendation. Nivolumab (Optivo®). *Canadian Journal of Health Technologies* 2022;2(2). https://www.cadth.ca/sites/default/files/DRR/2022/PC0253%20Opdivo%20-%20CADTH%20Final%20Rec%20Final.pdf

6 Janjigian YY, Shitara K, Moehler M, et al. Nivolumab plus chemotherapy versus chemotherapy as first-line treatment for advanced gastric cancer/gastroesophageal junction cancer/oesophageal adenocarcinoma (CheckMate 649): a multicentre, randomised, open-label, phase 3 trial. *Lancet* 2021;398(10294):27-40. http://dx.doi.org/10.1016/S0140-6736(21)00797-2

7 CADTH Reimbursement Recommendation. Nivolumab (Optivo®). *Canadian Journal of Health Technologies* 2022;2(3). https://www.cadth.ca/sites/default/files/DRR/2022/PC0259%20Opdivo%20-%20Final%20CADTH%20Rec.pdf

8 Pan-Canadian Oncology Drug Review (pCODR) Expert Review Committee (pERC). Final recommendation for decitabine and cedazuridine (Inqovi®). September 2021. https://www.cadth.ca/sites/default/files/pcodr/Reviews2021/10228Decitabine-CedazuridineMDS_FnRec_REDACT_Post22Sep2021_final.pdf

9 Pan-Canadian Oncology Drug Review (pCODR) Expert Review Committee (pERC). Final recommendation for blinatumomab (Blincyto®). 29 October 2020. https://www.cadth.ca/sites/default/files/pcodr/Reviews2020/10204BlinatumomabMRD%2BBCPALL_fnREC_approvedbyChair_REDACT_Post29Oct2020_final.pdf

Provincial Systemic Therapy

Monthly CST Bulletin

The **CST Bulletin** is a monthly communication outlining updates to CST PowerPlans resulting from changes to BC Cancer Systemic Therapy protocols and provincial pre-printed orders (PPPOs). These notifications bring awareness of important updates to nursing staff, pharmacy staff and prescribers. The CST Bulletin is available on the CST Bulletin page in the Systemic Therapy section of the BC Cancer website.

Medication Safety

World Patient Safety Day: Focus on Polypharmacy

Polypharmacy is the second medication safety priority area for World Patient Safety Day. The management of high-risk situations was featured last month in the October 2022 issue of the Systemic Therapy Update. Next month, transitions of care – the third medication safety priority area – will be highlighted.

Polypharmacy is the concurrent use of multiple medications, including prescription, non-prescription and complementary medicines. There are instances where polypharmacy is needed and beneficial, such as when several therapeutic agents are required to manage a chronic condition. However, vulnerable patients are at higher risk of adverse drug events and have more difficulty managing multiple medications. Vulnerable patients include older individuals, those with language barriers or with cognitive challenges. To best support patients, processes should be in place to ensure ongoing assessment of the appropriateness of polypharmacy, such as determining if medications are no longer required or are not achieving the desired therapeutic outcome, or if patients cannot take the medications as intended.

Many people with cancer have co-morbidities. Because cancer treatment drugs can have significant drug interactions with other medications, this can impact the efficacy and toxicities of all drugs prescribed. A 2019 survey sent to BC Cancer patient and family partner volunteers found that polypharmacy was highly prevalent in people with cancer. Established processes within BC Cancer help identify polypharmacy and potential drug-therapy problems; such processes include medication reviews by pharmacists and medication reconciliation by prescribers. Engaging patient partners in discussion is also vital to ensuring that patients' needs are met.

Medication Safety Pearl:

The acronym NESA-U is a helpful patient-centred tool to help clinicians systematically assess the appropriateness of polypharmacy and to identify drug-therapy problems.

N	**NECESSARY**	is the drug needed?
E	**EFFECTIVE**	is the drug effective for the condition?
S	**SAFETY**	is the drug safe for the patient?
A	**ADHERENCE**	is the patient able to adhere to the treatment?
U	**UNMET NEEDS**	what are patients' unmet needs? are they able to benefit from other interventions?

Reference

World Health Organization. Medication Safety in Polypharmacy. Geneva; 2019.
https://www.who.int/publications/i/item/WHO-UHC-SDS-2019.11

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 email communications previously circulated to BC Cancer and the Community Oncology Network (CON).

New

Octreotide (long acting injection)

Adapted from BC Cancer Briefing Note: 03 October 2022

At BC Cancer, octreotide long acting injection is used in the management of functional and non-functional neuroendocrine tumours of the GI tract (GINFOCLAR, GIOCTLAR), as well as for the treatment of growth hormone-secreting pituitary tumours (CNOCTLAR). Octreotide long acting injection (a depot suspension formulation) is administered by deep intragluteal intramuscular injection, typically at 4-week intervals.

There is a pending backorder for Teva brand octreotide long acting injection. Currently all strengths are available within the distribution network (10 mg, 20 mg, 30 mg), but the supply issue is not anticipated to resolve until January 2023. The alternate manufacturer, Novartis, has supply of all strengths. Teva brand supplies should be reserved for patients currently on treatment, as new patients are not being accepted into Teva's home injection program. Novartis does not have a home injection program, but patients can be enrolled/re-enrolled in Novartis' ACCESS program to access Innomar clinic injection services.

Contact your regional cancer pharmacy to confirm which octreotide brand is available.

Protocols	Recommendations
CN | Neuro-Oncology	
CNOCTLAR	**Current patients:** Continue using Teva brand. If unavailable, switch to Novartis brand. **New patients:** Start on Novartis brand **All patients:** Can consider lanreotide (CNLAN)
GI | Gastrointestinal	
GINFOCLAR	**Current patients:** Continue using Teva brand. If unavailable, switch to Novartis brand. **New patients:** Start on Novartis brand
GIOCTLAR	**Current patients:** Continue using Teva brand. If unavailable, switch to Novartis brand. **New patients:** Start on Novartis brand **All patients:** Can consider lanreotide (UGILAN)

Novartis ACCESS® Patient Support Program
phone: 1-866-281-4688

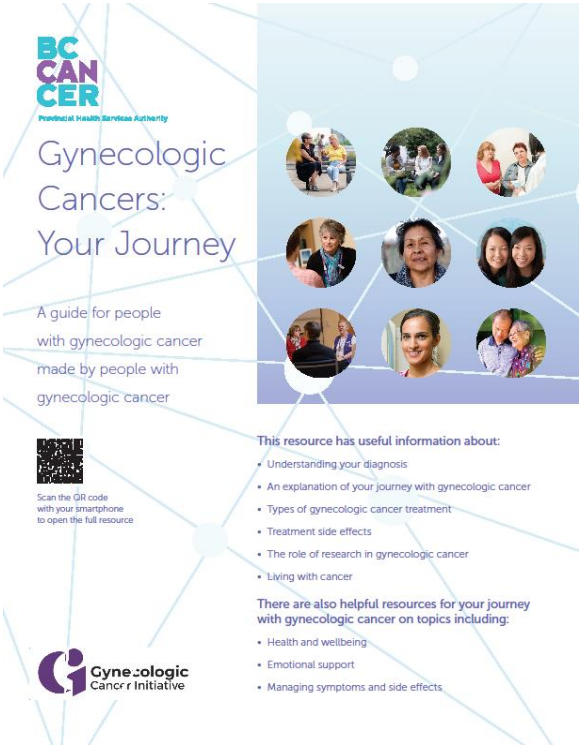
Teva Octreotide Patient Care Program®
phone: 1-877-445-6984

Patients' Corner

New Resource for Patients with Gynecologic Cancer

Gynecologic Cancers: Your Journey – *A guide for people with gynecologic cancer, made by people with gynecologic cancer*, is a new information resource for patients with cervical, endometrial, ovarian, vaginal or vulvar cancers.

- This patient-centred resource was made in collaboration with a group of patient partners across all health authorities in BC. It features information about a patient's journey from diagnosis, through treatment, to living with cancer, with links to many other helpful resources.
- It is now available on the BC Cancer website in the Health Info > Types of Cancer > Pelvic Area Cancer section.
- Staff and physicians are encouraged to bookmark the webpage and share it with patients and families. The first page, which includes a QR code, may also be printed and posted on bulletin boards.



ST Update Editorial Review Board

Membership Update

The ST Update Editorial Review Board would like to welcome **Samuel Hackett** (Clinical Informatics Nursing Process Specialist, BC Cancer) to the Board. Sam's clinical expertise is in the delivery of systemic therapy nursing care. Most recently, he was a Clinical Trials Nurse Coordinator for lung and CNS malignancies at BC Cancer – Victoria. In his current role with Provincial Systemic Therapy, Primary Care Programs and the Community Oncology Network, Sam will bring a valuable perspective to the ST Update Editorial Review Board and to the ongoing process of creating an informative, relevant newsletter for a BC-wide readership. Welcome Sam!

Cancer Drug Manual©

All documents are available in the Cancer Drug Manual© on the BC Cancer website.

New Documents

The **Daunorubicin-Cytarabine Liposome Monograph** and **Patient Handout** have been developed with expert review provided by Dr. David Sanford (hematologist) of the BC Cancer Leukemia & Bone Marrow Transplant Tumour Group and Winnie Cheng (Drug Information Specialist, Provincial Pharmacy). Daunorubicin-cytarabine liposome is a combination product of daunorubicin and cytarabine encapsulated in liposomes for intravenous administration. This formulation is also known as daunorubicin liposomal-cytarabine liposomal. Dosing is based on the daunorubicin component; each 44 mg/m^2 daunorubicin component delivers cytarabine 100 mg/m^2. Daunorubicin-cytarabine liposome is used in the treatment of acute myeloid leukemia (see BC Cancer protocol LKAMLDCYT).

Highlights from these documents include:

- daunorubicin-cytarabine liposome is a fixed-dose combination product and *cannot* be interchanged with any other daunorubicin- or cytarabine-containing product
- the prolonged half-life of the liposome delays time to recovery of ANC and platelets; severe myelosuppression may occur, resulting in fatal infections and serious or fatal hemorrhagic events
- hypersensitivity reactions are commonly reported; the most frequently reported reaction is rash
- daunorubicin has a known risk of cardiotoxicity; cardiac function should be monitored

Daunorubicin-cytarabine liposome has been added to the **Chemotherapy Preparation and Stability Chart** and the **Extravasation Hazard Table**, and has been evaluated for the **BC Health Authorities Provincial Hazardous Drug List.**

The **Azacitidine Patient Handout (oral)** has been developed with expert review provided by Dr. David Sanford (hematologist) of the BC Cancer Leukemia & Bone Marrow Transplant Tumour Group and Megan Darbyshire (BC Cancer Tumour Group Pharmacist, Provincial Pharmacy).

Revised Documents

Azacitidine Patient Handout (injection)
Revised to align with current template changes associated with development of new oral handout

Decitabine-Cedazuridine Monograph and **Patient Handout**
Dosage Guidelines: bolded and italicized BC Cancer standard dosing; added new protocol (ULKMDSDC)
Patient Handout: updated nausea and diarrhea sections in Side Effect table to include new messaging about dehydration; updated numbness and tingling to include new management

Durvalumab Monograph
Uses: updated Health Canada-approved indications
Dosage Guidelines: bolded and italicized BC Cancer dosing and added new protocol (LUSCDURPE)

EPOCHR Chemotherapy Preparation and Stability Chart
New entry: EPOCHR (protocol LYEPOCHR) using etoposide phosphate in place of conventional etoposide
Updated protocol code as no longer requires CAP (now LYEPOCHR; previously ULYEPOCHR)

Cancer Drug Manual©

Pemetrexed Monograph and **Chemotherapy Preparation and Stability Chart**

Supply and Storage: added Accord brand ready-to-use solution; updated for current Canadian brands

Chemotherapy Preparation and Stability Chart: added Accord brand ready-to-use solution

Auxiliary Label List

Decitabine-cedazuridine: added new custom label for non-standard instructions for administration on an empty stomach and spacing apart from antacids

Cancer Drug Manual© Editorial Board Changes

The Cancer Drug Manual© Editorial Review Board would like to wish **Khushminder Rai** (CON Pharmacy Educator, Surrey) all the best while she is on maternity leave. Replacing her in her role as CON Pharmacy Educator will be **Alysha Bharmal**, Clinical Pharmacist, Surrey, and current Cancer Drug Manual© writer. Welcome to the board, Alysha, in your new role!

BC Cancer Benefit Drug List

New Programs

The following treatment programs have been added to the Benefit Drug List effective 01 November 2022:

Protocol Title	Protocol Code	Benefit Status
Alternative Adjuvant Therapy for Breast Cancer using **Paclitaxel NAB (ABRAXANE)** and Trastuzumab	**BRAJPNT**	Class I
Adjuvant Treatment of Resected Esophageal or Gastroesophageal Junction Cancer using **Nivolumab**	**GIAJNIV**	Class I
First-Line Treatment of Locally Advanced or Metastatic Esophageal, Gastroesophageal, or Gastric Cancer using **Oxaliplatin**, **Capecitabine** and **Nivolumab**	**GIGAVCOXN**	Class I
First-Line Treatment of Locally Advanced or Metastatic Esophageal, Gastroesophageal, or Gastric Cancer using **Oxaliplatin**, **Fluorouracil**, **Leucovorin** and **Nivolumab**	**GIGAVFFOXN**	Class I
Therapy of Myelodysplastic Syndrome using **Decitabine-Cedazuridine**	**ULKMDSDC**	Restricted
Treatment of Pre-B-Cell Acute Lymphoblastic Leukemia with Minimal Residual Disease using **Blinatumomab**	**ULKMRDBLIN**	Restricted
Blinatumomab: for pediatric patients with Philadelphia chromosome-negative and CD19-positive pre-B-cell acute lymphoblastic leukemia (ALL) in complete hematologic remission (CR) and with minimal residual disease (MRD) positivity	**Pediatric**	Restricted
Gemtuzumab ozogamicin: for pediatric patients with de novo acute myeloid leukemia (AML) in the first induction chemotherapy cycle, in combination with standard chemotherapy	**Pediatric**	Restricted

BC Cancer Benefit Drug List

Revised Programs

The following treatment programs have been revised on the Benefit Drug List effective 01 November 2022:

Protocol Title	Protocol Code	Benefit Status
Treatment of Previously Untreated Chronic Lymphocytic Leukemia or Small Lymphocytic Lymphoma using **Acalabrutinib**	**LYFACAL**	Class I *(previously Restricted)*
Treatment of Previously Untreated Chronic Lymphocytic Leukemia or Small Lymphocytic Lymphoma using **Ibrutinib**	**LYFIBRU**	Class I *(previously Restricted)*

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.**

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

Protocol Code	Protocol Title	Protocol	PPPO	Handout
BRAJPNT	Alternative Adjuvant Therapy for Breast Cancer using Paclitaxel NAB (ABRAXANE) and Trastuzumab	☑	☑	☑
GIAJNIV	Adjuvant Treatment of Resected Esophageal or Gastroesophageal Junction Cancer using Nivolumab	☑	☑	☑
GIGAVCOXN	First-Line Treatment of Locally Advanced or Metastatic Esophageal, Gastroesophageal, or Gastric Cancer using Oxaliplatin, Capecitabine and Nivolumab	☑	☑	☑
GIGAVFFOXN	First-Line Treatment of Locally Advanced or Metastatic Esophageal, Gastroesophageal, or Gastric Cancer using Oxaliplatin, Fluorouracil, Leucovorin and Nivolumab	☑	☑	☑
ULKMDSDC	Therapy of Myelodysplastic Syndrome using Decitabine-Cedazuridine	☑	☑	☑
ULKMRDBLIN	Treatment of Pre-B-Cell Acute Lymphoblastic Leukemia with Minimal Residual Disease using Blinatumomab	☑	☐	☐

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

Protocol Code	Protocol Title	Protocol	PPPO	Handout
BR | Breast				
BRAVPALAI	Therapy of Advanced Breast Cancer using Palbociclib and Aromatase Inhibitor with or without LHRH Agonist	*Eligibility clarified*	-----	-----
GO | Gynecologic Oncology				
GOTDEMACO	Therapy for High-Risk Gestational Trophoblastic Neoplasia (GTN) using Etoposide, Methotrexate, Leucovorin (Folinic Acid), Dactinomycin, Cyclophosphamide and Vincristine	*Cyclophosphamide and methotrexate bag sizes revised; Dose Modifications clarified*	*Cyclophosphamide and methotrexate bag sizes revised; PO etoposide added*	-----
LK | Leukemia				
ULKBLIN	Treatment of Philadelphia Chromosome (Ph)-Positive or Ph-Negative Refractory or Relapsed Pre-B-Cell Acute Lymphoblastic Leukemia with Blinatumomab	*Eligibility clarified; Exclusion added*	-----	-----
ULKINOZ	Treatment of Relapsed or Refractory Pre-B Cell Acute Lymphoblastic Leukemia with Inotuzumab Ozogamicin	*Eligibility clarified*	-----	-----
ULKMFFED	Treatment of Symptomatic Myelofibrosis with Fedratinib	*Exclusions clarified*	-----	-----
LU | Lung				
LULACATRT	Treatment of Locally Advanced Non-Small Cell Lung Cancer using Carboplatin and Paclitaxel with Radiation Therapy	*Premedications clarified*	-----	-----
LY | Lymphoma				
~~U~~LYFACAL	Treatment of Previously Untreated Chronic Lymphocytic Leukemia or Small Lymphocytic Lymphoma using Acalabrutinib	*Protocol Code and Eligibility updated; CAP requirement removed*	*Protocol code updated; CAP requirement removed*	-----
~~U~~LYFIBRU	Treatment of Previously Untreated Chronic Lymphocytic Leukemia or Small Lymphocytic Lymphoma using Ibrutinib	*Protocol Code, Eligibility, Tests, Dose Modifications and Precautions updated*	*Protocol code updated; CAP requirement removed; Tests updated*	-----
LYIBRU	Treatment of Relapsed/Refractory Chronic Lymphocytic Leukemia or Small Lymphocytic Lymphoma using Ibrutinib	*Eligibility, Tests, Dose Modifications and Precautions updated*	*Tests updated*	-----
LYIDELAR	Treatment of Relapsed/Refractory Chronic Lymphocytic Leukemia (CLL) or Small Lymphocytic Lymphoma (SLL) using Idelalisib and Rituximab	*Eligibility clarified*	-----	-----
LYIT	Treatment of Lymphoma using Intrathecal Methotrexate and Cytarabine	-----	*Anticoagulation language clarified*	-----

REVISED Protocols, PPPOs and Patient Handouts *(revisions in respective columns)*				
Protocol Code	**Protocol Title**	**Protocol**	**PPPO**	**Handout**
LYMIBRU	Treatment of Relapsed/Refractory Mantle-Cell Lymphoma using Ibrutinib	*Eligibility, Tests, Dose Modifications and Precautions updated*	*Tests updated*	-----
MY | Myeloma				
UMYBLDF	Treatment of Previously Untreated Multiple Myeloma and Not Eligible for Stem Cell Transplant using Bortezomib, Lenalidomide and Dexamethasone	-----	**Patient Handout:** *Safety information and treatment plan description updated; treatment cycle calendar added; Side Effects table updated*	
UMYDARLD	Treatment of Relapsed and Refractory Multiple Myeloma with Daratumumab in Combination with Lenalidomide and Dexamethasone	*Typo fixed*	-----	-----

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		
CST Bulletin: http://www.bccancer.bc.ca/health-professionals/clinical-resources/systemic-therapy/cst-bulletin		
Systemic Therapy Update Editor	604-877-6000 x 672649	bulletin@bccancer.bc.ca
Oncology Drug Information Cancer Drug Manual Editor Pharmacy Oncology Certification Nurse Educators	604-877-6275 250-519-5500 x 693742 250-712-3900 x 686820 604-877-6000 x 672638	druginfo@bccancer.bc.ca nbadry@bccancer.bc.ca rxchemocert@bccancer.bc.ca nursinged@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
Manufacturer Patient Assistance Programs: http://www.bccancer.bc.ca/mpap		
Library/Cancer Information	604-675-8003	requests@bccancer.bc.ca toll free 888-675-8001 x 8003
Library Document Delivery	604-675-8002	requests@bccancer.bc.ca
Pharmacy Professional Practice Professional Practice, Nursing Provincial Systemic Therapy	604-877-6000 x 672247 604-877-6000 x 672623 604-877-6000 x 672247	mlin@bccancer.bc.ca BCCancerPPNAdmin@ehcnet.phsa.ca mlin@bccancer.bc.ca
BC Cancer – Abbotsford BC Cancer – Kelowna BC Cancer – Prince George BC Cancer – Surrey BC Cancer – Vancouver BC Cancer – Victoria	604-851-4710 250-712-3900 250-645-7300 604-930-2098 604-877-6000 250-519-5500	toll free 877-547-3777 toll free 888-563-7773 toll free 855-775-7300 toll free 800-523-2885 toll free 800-663-3333 toll free 800-670-3322
Community Oncology Network (CON) sites: To update your contact information, please contact: bulletin@bccancer.bc.ca		

Editorial Review Board