Provincial Health Services Authority

Systemic Therapy Update

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For Health Professionals Who Care for People with Cancer

Inside This Issue

Editor's Choice

New Programs

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

Breast

Paclitaxel NAB as Alternative Adjuvant Therapy for Breast Cancer (BRAJPN) — The BC Cancer Breast Tumour Group is implementing paclitaxel NAB in the neoadjuvant or adjuvant setting for patients with previous severe hypersensitivity reaction (HSR) or anaphylaxis to paclitaxel or docetaxel that is not manageable despite using premedications. Patients with previous moderate HSR that can't be managed with premedications due to a strong contraindication to high-dose steroids may also receive paclitaxel NAB. Premedication with steroid, antihistamine and H_2-receptor antagonist is not required with paclitaxel NAB. Paclitaxel NAB is repeated 3-weekly to complete the total number of cycles in the original paclitaxel or docetaxel protocol.

Hypersensitivity reactions to taxanes may be due to the Cremophor solvent in the paclitaxel formulation, or in some cases, HSRs may be caused by the taxane moiety itself. The cross-reactivity rate between

paclitaxel and docetaxel is 40-90%; when HSRs are severe, rechallenge with paclitaxel or docetaxel may be unsafe.[1] Paclitaxel NAB is a solvent-free, albumin-bound nanoparticle paclitaxel formulation. Paclitaxel NAB has been studied in patients on an anthracycline/taxane-containing curative treatment regimen in multiple randomized phase III trials. In ETNA, paclitaxel NAB was associated with a nonsignificant improvement in the primary endpoint of pathologic complete response (pCR) rate when compared with paclitaxel (22.5% vs. 18.6%, OR 0.77, 95% CI 0.52-1.13).[2] In the GerparSepto, the pCR rate was significantly higher in those patients receiving paclitaxel NAB when compared with paclitaxel (38.4% vs. 29%, OR 1.53, 95% CI 1.20-1.95).[3]

Pertuzumab, Trastuzumab and Vinorelbine as First-Line Treatment for Advanced Breast Cancer (BRAVPTRVIN) — The BC Cancer Breast Tumour Group is implementing first-line treatment with pertuzumab, trastuzumab and vinorelbine for patients with HER2-positive unresectable locally recurrent or metastatic breast cancer. This alternative treatment protocol is appropriate for patients deemed ineligible for standard first-line taxane-based treatment (BRAVPTRAD or BRAVPTRAT). Vinorelbine is administered for up to eight cycles; pertuzumab and trastuzumab are continued until disease progression or unacceptable toxicity. Note that vinorelbine follows 25 mg/m^2 dosing on days 1 and 8 for cycle 1, after which the dose is escalated to 30-35 mg/m^2 on days 1 and 8 from cycle 2 onwards.

Multiple trials have established the use of vinorelbine/trastuzumab in the advanced HER2-positive setting (available as BRTRVIN). The phase II VELVET trial evaluated the use of vinorelbine, pertuzumab and trastuzumab in two cohorts; the cohorts differed only in whether pertuzumab and trastuzumab were in the same or different infusion bags.[4,5] Results showed a median progression-free survival (PFS) in the range of 11.5-14.3 months, with an objective response rate (ORR) in the range of 63.7-74.2%.

Leukemia

Oral Azacitidine as Maintenance Therapy for Acute Myeloid Leukemia (ULKAMLAMTN) — The BC Cancer Leukemia and BMT Tumour Group is introducing oral azacitidine as maintenance therapy for eligible patients with acute myeloid leukemia (AML). Currently, patients with newly diagnosed AML with intermediate or poor-risk cytogenetics are treated with induction chemotherapy delivered in Vancouver by the Leukemia/Bone Marrow Transplant Program. Following complete remission, patients are usually treated with outpatient consolidation therapy or are planned for allogeneic hematopoietic stem cell transplant (HSCT) with the goal of preventing disease relapse or achieving cure. Consolidation or HSCT is not feasible for some patients due to frailty, poor performance status, significant comorbidities, or absence of a suitable donor; oral azacitidine maintenance therapy is now available for these patients. The usual dose is 300 mg daily on days 1-14 of a 28-day cycle, until disease progression or unacceptable toxicity. BC Cancer Compassionate Access Program (CAP) is required.

Approval for this treatment program is supported by the randomized, placebo-controlled phase III QUAZAR trial in which patients with AML received oral azacitidine maintenance therapy following induction or consolidation chemotherapy.[6,7] Median overall survival (OS) was significantly longer in the azacitidine group (mOS 24.7 months vs. 14.8 months, HR 0.69, 95% CI 0.55-0.86). Azacitidine was also associated with a statistically significant and clinically meaningful longer median relapse-free survival (RFS) (mRFS 10.2 months vs. 4.8 months, HR 0.65, 95% CI 0.52-0.81).

Daunorubicin Liposomal-Cytarabine Liposomal for Acute Myeloid Leukemia (LKAMLDCYT) — The BC Cancer Leukemia and BMT Tumour Group is introducing daunorubicin liposomal-cytarabine liposomal

for patients with newly diagnosed therapy-related AML (t-AML) or AML with myelodysplasia-related changes (AML-MRC). These diagnostic categories are generally associated with a worse prognosis than de novo AML. Patients with t-AML or AML-MRC will receive induction chemotherapy with daunorubicin liposomal-cytarabine liposomal, rather than with the conventional 7+3 chemotherapy (cytarabine + daunorubicin). Daunorubicin liposomal-cytarabine liposomal is a dual-drug liposomal encapsulation of cytarabine and daunorubicin. The liposomes exhibit a prolonged half-life following intravenous infusion, with controlled drug delivery at the target site and reduced off-target adverse effects. Daunorubicin liposomal-cytarabine liposomal dosing is based on the daunorubicin component; each 44 mg/m^2 daunorubicin component will deliver cytarabine 100 mg/m^2. It is infused over 90 minutes; cycles consist of two or three doses, with patients receiving up to two cycles each of induction and consolidation.

A randomized phase III trial compared daunorubicin liposomal-cytarabine liposomal to conventional 7+3 chemotherapy in patients with newly diagnosed tAML or AML-MRC.[8,9] The primary endpoint of median OS was improved in patients that received daunorubicin liposomal-cytarabine liposomal (mOS 9.56 months vs. 5.95 months, HR 0.69, 95% CI 0.52-0.90). A greater number of patients in the daunorubicin liposomal-cytarabine liposomal group were able to undergo allogeneic HSCT (34.0% vs. 25%). In patients who underwent HSCT, the median OS, landmarked from the date of transplantation, favoured daunorubicin liposomal-cytarabine liposomal (mOS not reached vs. 10.25 months, HR 0.46, 95% CI 0.24-0.89). The safety profiles of the comparator regimens were similar in the study, however, daunorubicin liposomal-cytarabine liposomal was associated with more prolonged myelosuppression, including the median time to absolute neutrophil count recovery > 0.5 (35 days vs. 29 days) and platelet count recovery > 50 (36.5 days vs. 29 days).

Lung

Durvalumab, Platinum and Etoposide for Extensive-Stage Small Cell Lung Cancer (LUSCDURPE) — The BC Cancer Lung Tumour Group is introducing durvalumab in combination with platinum-etoposide chemotherapy for patients with previously untreated extensive stage small cell lung cancer (ES-SCLC). Approximately 12% of lung cancers are small cell lung cancer (SCLC), with 67% of patients with SCLC presenting with extensive stage disease (ES-SCLC) at diagnosis. Although most patients respond to standard first-line treatment with platinum-etoposide chemotherapy, most patients with ES-SCLC relapse within months. This is the first immunotherapy-containing treatment program for patients with ES-SCLC. Patients on active treatment with LUSCPE, and without proven progression, may switch to LUSCDURPE if all other eligibility criteria are met.

The open-label phase III CASPIAN trial assessed platinum-etoposide chemotherapy, with or without durvalumab, in previously untreated patients with ES-SCLC.[10,11,12] At a median follow up of 25.1 months, the median OS was significantly improved with the addition of durvalumab (12.9 months vs. 10.5 months, HR 0.75, 95% CI 0.62-0.91). At 18 months of follow up, more patients were alive in the durvalumab group (32% vs. 24.8%). Analysis of survival outcomes failed to demonstrate an advantage from the use of tremelimumab in a third study arm.

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

Editor's Choice

New Programs

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 Perez EA, López-Vega JM, Petit T, et al. Safety and efficacy of vinorelbine in combination with pertuzumab and trastuzumab for first-line treatment of patients with HER2-positive locally advanced or metastatic breast cancer: VELVET Cohort 1 final results. *Breast Cancer Res* 2016;18(1):126. http://dx.doi.org/10.1186/s13058-016-0773-6

5 Andersson M, López-Vega JM, Petit T, et al. Efficacy and safety of pertuzumab and trastuzumab administered in a single infusion bag, followed by vinorelbine: VELVET Cohort 2 final results. *Oncologist* 2017;22(10):1160-1168. http://dx.doi.org/10.1634/theoncologist.2017-0079

6 Wei AH, Döhner H, Pocock C, et al. Oral azacitidine maintenance therapy for acute myeloid leukemia in first remission. *N Engl J Med* 2020;383(26):2526-2537. http://dx.doi.org/10.1056/NEJMoa2004444

7 CADTH Reimbursement Recommendation. Azacitidine (Onureg®). *Canadian Journal of Health Technologies* 2021;1(10). https://cadth.ca/sites/default/files/DRR/2021/PC0245%20Onureg%20-%20CADTH%20Final%20Rec.pdf

8 Lancet JE, Uy GL, Cortes JE, et al. CPX-351 (cytarabine and daunorubicin) liposome for injection versus conventional cytarabine plus daunorubicin in older patients with newly diagnosed secondary acute myeloid leukemia. *J Clin Oncol* 2018;36(26):2684-2692. https://doi.org/10.1200/JCO.2017.77.6112

9 CADTH Reimbursement Recommendation. Daunorubicin and Cytarabine (Vyxeos®). *Canadian Journal of Health Technologies* 2021;1(8). https://www.cadth.ca/sites/default/files/DRR/2021/PC0237%20Vyxeos%20-%20CADTH%20Final%20Rec.pdf

10 Paz-Ares L, Dvorkin M, Chen Y, et al. Durvalumab plus platinum-etoposide versus platinum-etoposide in first-line treatment of extensive-stage small-cell lung cancer (CASPIAN): a randomised, controlled, open-label, phase 3 trial. *Lancet* 2019;394(10212):1929-1939. https://doi.org/10.1016/S0140-6736(19)32222-6

11 Paz-Ares L, Chen Y, Reinmuth N, et al. Durvalumab, with or without tremelimumab, plus platinum-etoposide in first-line treatment of extensive-stage small-cell lung cancer: 3-year overall survival update from CASPIAN. *ESMO Open* 2022;7(2):100408. https://doi.org/10.1016/j.esmoop.2022.100408

12 CADTH Reimbursement Recommendation. Durvalumab (Imfinzi®). *Canadian Journal of Health Technologies* 2021;1(7). https://www.cadth.ca/sites/default/files/DRR/2021/PC0234%20Imfinzi%20-%20CADTH%20Final%20Rec.pdf

Provincial Systemic Therapy

All Systemic Therapy policies are on the Shared Health Organizations Portal (SHOP) BC Cancer page.

Policy III-230: Cooling Systems and Cold Caps

Scalp cooling is a strategy that may be used in the prevention of chemotherapy-induced alopecia. A new patient-led approach for cold caps is being implemented 01 October 2022.

Newly created Systemic Therapy **Policy III-230: Cooling Systems and Cold Caps for Chemotherapy-Induced Alopecia** allows patients to bring a privately purchased cold cap to their chemotherapy treatments for personal use. Nurses and BC Cancer staff will not be providing support on the cold caps in any capacity. An educational patient handout is available in several languages in the Coping with Cancer > Managing Symptoms & Side Effects > Hair Loss & Appearance section of the BC Cancer website.

Please contact your local chemotherapy unit leadership for specific procedures, as each regional centre will be operationalizing this initiative to fit into their chemotherapy unit workflow.

Policy III-10: Systemic Therapy Treatment Delivery Process

Policy III-10: Systemic Therapy Treatment Delivery Process has been updated effective 01 October 2022. The updated policy reflects practice changes and patient/provider needs at BC Cancer following a pilot project completed at BC Cancer – Prince George and at BC Cancer – Kelowna.

The pilot project assessed the safety and efficacy of experienced nurse practitioners (NPs) writing first cycle systemic therapy orders in consultation with a medical oncologist. The four NPs participating in this project received a total of 48 patient referrals. A wide range of tumour sites were evaluated in this project. Most patients had metastatic malignancies (85%), but had a good ECOG performance status (79%). There was an even split between new patients and treatment changes for existing patients. No safety concerns or PSLS reports were associated with this project.

There was overall satisfaction with the project from providers, NPs and allied health team members. Key successes included improved access to timely care for patients, promotion of the multidisciplinary team approach to patient care (the right provider for the patient at the right time) and an opportunity to advance practice at BC Cancer to benefit both patients and providers.

Policy language changes include the following:

- Nurse practitioners in oncology may prescribe cancer treatment, for the second and subsequent cycles of a BC Cancer chemotherapy protocol (including Compassionate Access Program-approved treatments), in accordance with the patient-specific treatment plan developed by the BC Cancer most responsible oncology provider (MROP)
- For hormonal therapy, nurse practitioners may initiate or renew a prescription for tamoxifen or aromatase inhibitors in accordance with the hormonal therapy guidelines and within their scope of practice and standards, limits and conditions of the British Columbia College of Nurses and Midwives
- In select circumstances, a nurse practitioner working within BC Cancer regional centres may be authorized to prescribe cancer treatments for all cycles – full criteria outlined in Policy III-10

Medication Safety

World Patient Safety Day: Focus on Medication Safety

As outlined in the September 2022 issue of the Systemic Therapy Update, the World Health Organization (WHO) has chosen **Medication Safety** as the *theme* for World Patient Safety Day 2022, with the *slogan* **Medication Without Harm**. The WHO has requested countries to strongly commit to three priority medication safety areas: high-risk situations, polypharmacy and transitions of care. This article will highlight the first priority area – managing high-risk situations.

High-risk (or high-alert) medications pose an increased risk to patients when used in error. While errors may not be more common with high-risk medications, the impact of these errors is of higher significance to patients. Drugs that fall into this category include most oncology treatment drugs, concentrated electrolytes and high potency opioids. Processes to support staff workflow to prevent errors include standardizing prescribing (e.g., using pre-printed orders), restricting access (e.g., concentrated electrolytes are not available in automated dispensing cabinets), incorporating independent double checks in appropriate workflow steps, and optimizing technology (e.g., barcoding and dose error-reduction systems [DERS] infusion pumps).

High-alert medications that are look-alike/sound-alike (LASA) add an additional layer of risk. To prepare for the implementation of subcutaneous daratumumab, for example, a risk assessment was completed and additional safety strategies were recommended to distinguish the available daratumumab formulations – see September 2022 issue of the Systemic Therapy Update.

Two BC Cancer policies detail the management of high-risk situations (on the SHOP BC Cancer page):

- High-alert medications policy
- Look-alike/sound-alike medication management policy

Medication Safety Pearl:

DERS infusion pumps Guardrails® safety software ensures that cancer treatment drugs are administered within the safe dose and rate allowance according to cancer treatment protocols. A recent audit at BC Cancer in May 2022 found that 97% of infusions followed Guardrails® programming requirements. Hard stops prevented the incorrect administration of 1008 treatments (3% of total infusions). While the majority of hard stops were within 5 times the allowable safety limits, 9% of hard stops were 5-10 times the allowable safe infusion parameters and 4% of hard stops were 10-10,000 times the allowable safe infusion parameters. In other words, utilization of DERS infusion pumps prevented many significant medication administration errors.

Reference: World Health Organization. Medication Safety in High-Risk Situations. Geneva; 2019. https://www.who.int/publications/i/item/WHO-UHC-SDS-2019.10

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

Fludarabine (oral)

Adapted from BC Cancer Briefing Note: 13 September 2022

Fludarabine is used for the treatment of chronic lymphocytic leukemia, prolymphocytic leukemia, low-grade lymphoma, conditioning for stem cell transplant, and for pediatric indications. Fludarabine tablets are temporarily in shortage at the level of the manufacturer, Sanofi- Aventis Canada, due to a supply delay. The estimated availability date is 30 November 2022. BC Cancer centres and Community Oncology Network (CON) sites have a limited supply of fludarabine tablets remaining, which should be reserved for existing patients. Parenteral fludarabine may be an option for some patients as it is not in a shortage situation. See table below for therapeutic alternatives.

Fludarabine protocols		Recommendations
Lymphoma	**LYCLLFLUDR** **LYFCR** **LYFLU** **LYFLUDR**	Select parenteral fludarabine option
Blood and bone marrow transplant		Consult Leukemia/Bone Marrow Transplant Program of BC
Pediatric		Consult BC Children's Hospital Oncology

Cancer Drug Manual©

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

New Documents

Note that the following drug is not a BC Cancer Benefit Drug and requires application to the BC Cancer Compassionate Access Program (CAP). The corresponding Interim Monograph and Patient Handout are made available for reference only.

The **Zanubrutinib Interim Monograph** and **Patient Handout** have been developed with expert review provided by Dr. Alina Gerrie (hematologist, BC Cancer Lymphoma & Myeloma Tumour Group) and Megan Darbyshire (Tumour Group pharmacist, Provincial Pharmacy). **Zanubrutinib** is an orally administered Bruton's tyrosine kinase inhibitor. Zanubrutinib is used in the treatment of mantle cell lymphoma, marginal zone lymphoma and Waldenstrom's macroglobulinemia. The usual dose is 320 mg once daily, or 160 mg twice daily.

Highlights from these documents include:

- serious infections (bacterial, viral or fungal), including *opportunistic* infections, are commonly reported; prophylaxis may be required
- serious hemorrhagic events may occur; patients receiving concomitant antithrombotic agents may be at increased risk
- pre-existing hepatic impairment and some drug interactions may require starting dose reduction
- second primary malignancies such as basal cell or squamous cell carcinoma and malignant melanoma have been associated with zanubrutinib; monitor for suspicious lesions

Zanubrutinib has been added to the **Auxiliary Label List**, and has been evaluated for the **BC Health Authorities Provincial Hazardous Drug List.**

Revised Documents

Azacitidine Monograph

Cautions: added non-interchangeability statement for oral formulation
Fertility and *Pregnancy*: updated with new information and revised recommendations
Side Effects: added paragraph about oral administration
Supply and Storage: added oral formulation
Dosage Guidelines: added oral dosing (new protocol); updated dosing in renal and hepatic failure

Methotrexate Patient Handout (oral) and **Methotrexate Patient Handout (IT)**

Throughout document: updated style and language to align with recent updates of Methotrexate Patient Handout (injection)

Cancer Drug Manual© Editorial Board Changes

The Cancer Drug Manual© Editorial Review Board would like to welcome two medical oncologists to the board: Dr. Maria Ho, medical oncologist, BC Cancer – Centre for the North and Dr. Jean-Michel Lavoie, medical oncologist, BC Cancer – Victoria (previously BC Cancer – Surrey). Welcome!

BC Cancer Benefit Drug List

New Programs

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

Protocol Title	Protocol Code	Benefit Status
Alternative Adjuvant Therapy for Breast Cancer using **Paclitaxel NAB (ABRAXANE)**	**BRAJPN**	Class I
Palliative Therapy for Metastatic Breast Cancer using **Pertuzumab**, **Trastuzumab**, and **Vinorelbine** as First-Line Treatment for Advanced Breast Cancer	**BRAVPTRVIN**	Class I
Maintenance **Oral Azacitidine** for Acute Myeloid Leukemia	**ULKAMLAMTN**	Restricted
Therapy of Acute Myeloid Leukemia using **Daunorubicin Liposomal-Cytarabine Liposomal**	**LKAMLDCYT**	Class I
Treatment of Extensive-Stage Small Cell Lung Cancer (SCLC) with **Durvalumab**, **Platinum** and **Etoposide**	**LUSCDURPE**	Class I

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
BRAJPN	Alternative Adjuvant Therapy for Breast Cancer using Paclitaxel NAB (ABRAXANE)	☑	☑	☑
BRAVPTRVIN	Palliative Therapy for Metastatic Breast Cancer using Pertuzumab, Trastuzumab, and Vinorelbine as First-Line Treatment for Advanced Breast Cancer	☑	☑	☐
GOTDLRM	Therapy for Low-Risk Gestational Trophoblastic Cancer using Methotrexate	☐	☐	☑
ULKAMLAMTN	Maintenance Oral Azacitidine for Acute Myeloid Leukemia	☑	☑	☑
LKAMLDCYT	Therapy of Acute Myeloid Leukemia using Daunorubicin Liposomal-Cytarabine Liposomal	☑	☐	☐

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

Protocol Code	Protocol Title	Protocol	PPPO	Handout
LUSCDURPE	Treatment of Extensive-Stage Small Cell Lung Cancer (SCLC) with Durvalumab, Platinum and Etoposide	☑	☑	☑ **cisplatin & carboplatin handouts**

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

Protocol Code	Protocol Title	Protocol	PPPO	Handout
BR | Breast				
BRAVNAV	Palliative Therapy for Metastatic Breast Cancer using Vinorelbine	*Premedications revised*	*Premedications revised*	-----
BRAVTRVIN	Palliative Therapy for Metastatic Breast Cancer using Trastuzumab and Vinorelbine	-----	*Premedications revised*	-----
GI | Gastrointestinal				
GIPAJGCAP	Adjuvant Chemotherapy for Resected Pancreatic Adenocarcinoma using Capecitabine and Gemcitabine	-----	*Return Appointment Orders clarified*	-----
GIPAJGEM	Adjuvant Chemotherapy for Pancreatic Adenocarcinoma using Gemcitabine	-----	*Return Appointment Orders clarified*	-----
GIPGEM	Palliative Chemotherapy for Pancreatic Adenocarcinoma, Gallbladder Cancer and Cholangiocarcinoma using Gemcitabine	-----	*Return Appointment Orders clarified*	-----
GIPGEMABR	First-Line Treatment of Locally Advanced and Metastatic Pancreatic Cancer with Paclitaxel NAB (ABRAXANE) and Gemcitabine	-----	*Return Appointment Orders clarified*	-----
GIYTT	Yttrium-90 for Transarterial Radioembolisation (TARE)	*Eligibility updated*	-----	-----
GO | Gynecologic Oncology				
GOCABR	Alternative Treatment of Gynecological Malignancies using Carboplatin and Paclitaxel NAB (ABRAXANE)	*Dose Modifications clarified*	-----	-----
GOCABRBEV	Alternative Treatment of Gynecological Malignancies using Bevacizumab, Carboplatin and Paclitaxel NAB (ABRAXANE)	*Dose Modifications clarified*	-----	-----
GOENDCAT	Treatment of Primary Advanced or Recurrent Endometrial Cancer using Carboplatin and Paclitaxel	*Dose Modifications clarified*	-----	-----

REVISED Protocols, PPPOs and Patient Handouts *(revisions in respective columns)*				
Protocol Code	**Protocol Title**	**Protocol**	**PPPO**	**Handout**
GOOVCATB	Primary Treatment of Invasive Epithelial Ovarian, Fallopian Tube or Primary Peritoneal Cancer with High Risk of Relapse using Bevacizumab, Carboplatin and Paclitaxel	*Dose Modifications clarified*	-----	-----
GOOVCATM	Primary Treatment of No Visible Residual (Moderate-High Risk) Invasive Epithelial Ovarian, Fallopian Tube and Primary Peritoneal Cancer using Carboplatin and Paclitaxel	*Dose Modifications clarified*	-----	-----
GOOVCATR	Second-Line Treatment of Invasive Epithelial Ovarian, Fallopian Tube or Peritoneal Cancer Relapsing After Primary Treatment using Paclitaxel and Carboplatin	*Dose Modifications clarified*	-----	-----
GOOVCATX	Primary Treatment of Visible Residual (Extreme Risk) Invasive Epithelial Ovarian, Fallopian Tube or Peritoneal Cancer using Carboplatin and Paclitaxel	*Dose Modifications clarified*	-----	-----
GU | Genitourinary				
GUAJPG	Adjuvant Therapy for Urothelial Carcinoma using Cisplatin and Gemcitabine	-----	*IV bag size clarified*	-----
LU | Lung				
LUAVDOC	Second- or Later-Line Treatment of Advanced Non-Small Cell Lung Cancer (NSCLC) with Docetaxel	*Eligibility and treatment duration revised*	-----	*Treatment duration revised*
LUAVPEM	Second-Line Chemotherapy of Advanced Non-Small Cell Lung Cancer (NSCLC) with Pemetrexed	-----	-----	*Treatment duration revised*
LUMMIPNI	Treatment of Malignant Mesothelioma using Ipilimumab and Nivolumab	*Eligibility clarified*	-----	-----
LUMMIPNI3	Treatment of Malignant Mesothelioma using Ipilimumab and 3-Weekly Nivolumab	*Eligibility clarified*	-----	-----
LUSCPE	Treatment of Extensive Stage Small Cell Lung Cancer (SCLC) with Cisplatin and Etoposide	*IV bag size clarified*	-----	-----
LY | Lymphoma				
LYVENOB	Treatment of Previously-Untreated Chronic Lymphocytic Leukemia or Small Lymphocytic Lymphoma using Venetoclax and Obinutuzumab	*Tests clarified*	*Tests clarified* **PPPOs:** **Cycle 2 low/med-risk** **Cycle 2 high-risk**	-----

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 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