

Systemic Therapy Update

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For Health Professionals Who Care for Cancer Patients

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Resources and Contact Information

Editor's Choice

New Programs

Effective 01 February 2020, the BC Cancer Provincial Systemic Therapy Program has approved the following new treatment program. The full details of this program can be found on the BC Cancer website in the Chemotherapy Protocols section.

Lung

Durvalumab for Locally Advanced Non-Small Cell Lung Cancer (ULULADUR) — The BC Cancer Lung Tumour Group is introducing durvalumab, a PD-L1 checkpoint inhibitor, for patients with locally advanced stage III unresectable non-small cell lung cancer (NSCLC). Patients are eligible for durvalumab only if their disease has not progressed following at least two cycles of curative-intent, platinum-based chemoradiation therapy. No standard treatment options previously existed for this patient population, whose disease is likely to recur following first-line chemoradiation. A BC Cancer Compassionate Access Program (CAP) approval is required.

Approval of this new treatment program is based on the randomized, double-blind, placebo-controlled

Editor's Choice

phase III PACIFIC trial.² Durvalumab was associated with a significantly longer median progression-free survival (17.2 mo vs. 5.6 mo, HR 0.51, 95% CI 0.41-0.63). The rate of grade 3 or 4 adverse events was similar between the two treatment groups (30.5% vs. 26.1%). The most frequent adverse events leading to treatment discontinuation were pneumonitis (4.8% vs. 2.6%), radiation pneumonitis (1.3% vs. 1.3%) and pneumonia (1.1% vs. 1.3%).

References

- 1. Pan-Canadian Oncology Drug Review (pCODR) Expert Review Committee (pERC). Final recommendation for durvalumab (Imfinzi®) for non-small cell lung cancer. 03 May 2019.
- Antonia SJ, Villegas A, Daniel D, et al. Overall survival with durvalumab after chemoradiotherapy in stage III NSCLC. N Engl J Med 2018;379:2342-2350. doi: 10.1056/NEJMoa1809697

Drug Update

Biosimilar Trastuzumab Available

Effective 01 February 2020, the BC Cancer Provincial Systemic Therapy Program is implementing the use of biosimilar trastuzumab for select trastuzumab-containing treatment protocols. The trastuzumab biosimilars Herzuma® and Trazimera® are eligible for reimbursement by BC Cancer. A third biosimilar trastuzumab brand, Ogivri®, will not be reimbursed. BC Cancer regional centres will stock Herzuma® as the designated biosimilar.

BC Cancer Document Updates

- Breast and Gastrointestinal document revisions are noted in the *Revised Protocols, PPPOs and Patient Handouts* table at the end of the newsletter.
- A Pharmacy Selection Box has been added to trastuzumab-containing PPPOs:

Pharmacy to select trastuzumab brand as per Provincial Systemic Therapy Policy III-190

Drug	Brand (Pharmacist to complete. Please print.)	Pharmacist Initial and Date
trastuzumab		

- Trastuzumab Monograph, Patient Handout and Chemotherapy Preparation and Stability Chart Revisions are specified in the *Cancer Drug Manual* section below.
- Oncology Biosimilars Utilization Policy [III-190] Updates are noted in the *Provincial Systemic Therapy Program* announcement below.

Funding

- For treatment starting on or after 01 February 2020, only biosimilar trastuzumab will be funded.
- The reference biologic, Herceptin®, will continue to be funded for all patients who started a planned course of treatment prior to 01 February 2020. A treatment plan may consist of a trastuzumab-containing chemotherapy regimen (e.g., BRAJACTT, BRAVTRAD, GIGAVCCT), followed by single-agent trastuzumab given in a sequential regimen (e.g., BRAJTR, BRAVTR, GIGAVTR).
- All patients on combination pertuzumab and trastuzumab in the advanced setting will continue to receive the reference biologic, Herceptin®, regardless of start date (BRAVPTRAD and BRAVPTRAT).
- Full funding details were announced in the December 2019 issue of the Systemic Therapy Update.

Drug Update

Antiemetic Premedication Change

Effective 01 February 2020, **netupitant-palonosetron** plus dexamethasone will replace aprepitant and ondansetron plus dexamethasone as the standard antiemetic regimen at BC Cancer for patients receiving **highly-emetogenic chemotherapy (HEC).** The impetus for this practice change comes as a result of a recent update in PharmaCare Limited Coverage policy (see the <u>January 2020</u> issue of the Systemic Therapy Update for details). Netupitant-palonosetron is a fixed-dose combination product containing 300 mg netupitant (a NK_1 receptor antagonist – NK_1 RA) and 0.5 mg palonosetron (a 5-HT₃ receptor antagonist – 5-HT₃ RA). Due to its long duration of action, netupitant-palonosetron 300 mg-0.5 mg is given orally as a single dose prechemotherapy only, with no need for additional doses of NK_1 or 5-HT₃ RA post-chemotherapy.

BC Cancer Document Updates

•	Protocols and Pre-Printed Orders (PPPOs) have been updated with netupitant-palonosetron as an
	antiemetic option; revisions are noted in the Revised Protocols, PPPOs and Patient Handouts table at
	the end of the newsletter. Aprepitant has also been removed from the documents. Ondansetron
	remains an option for patients not requiring a NK ₁ RA. The standard antiemetic options in the
	PREMEDICATIONS section of HEC protocols now include:

netupitant-palonosetron (plus dexamethasone)
ondansetron (plus dexamethasone)

- The BC Cancer Guideline for the Prevention and Treatment of Chemotherapy-Induced Nausea and Vomiting in Adults (<u>SCNAUSEA</u>) has been updated. The 'pre-chemotherapy' administration time has been clarified as '30-60 minutes prior to the start of chemotherapy'. Information on multiday chemotherapy regimens, as well as the use of dexamethasone with anthracycline/cyclophosphamidebased regimens, has also been added.
- A BC Cancer prescription template for netupitant-palonosetron plus dexamethasone is forthcoming.
- Patient education materials for supportive care medications may not be available from BC Cancer, but
 are accessible from alternate sources. BC Cancer Systemic Therapy Policy III-160 Selecting Patient
 Medication Handouts guides the selection of patient handouts from resources such as Lexicomp or
 MedlinePlus.

PharmaCare and Prescribing

- The PharmaCare Collaborative Prescribing Agreement (CPA) for netupitant-palonosetron has replaced the aprepitant CPA. Oncologists who have signed the new CPA may prescribe netupitant-palonosetron without the need to complete PharmaCare Special Authority (SA) request forms for individual patients.
- PharmaCare SA coverage will continue until 01 August 2020 for patients prescribed aprepitant under the aprepitant CPA prior to 01 February 2020. A new SA request will be required for continued coverage beyond 01 August 2020.
- For patients granted non-CPA SA approval for aprepitant before 01 February 2020, and for <u>all new aprepitant-treated patients</u> after 01 February 2020, prescribers must submit a manual SA request.
- PharmaCare resources include: <u>Special Authority</u>, <u>Collaborative Prescribing Agreement</u> (link in Practitioner Exemptions section) and BC PharmaCare Newsletter (Nov 26, 2019 issue, page 4).

Drug Update

Manufacturer Patient Assistance Programs

The listing of patient assistance programs offered by pharmaceutical manufacturers has been updated and can be accessed directly at www.bccancer.bc.ca/mpap. It can also be found on the BC Cancer website under Health Professionals > Systemic Therapy > Reimbursement & Forms.

Provincial Systemic Therapy Program

Revised Policy: Oncology Biosimilars Utilization [III-190]

The BC Cancer Provincial Systemic Therapy Program has updated **Policy III-190 – Oncology Biosimilars Utilization** to include biosimilar trastuzumab. Information about the BC Cancer implementation of biosimilar trastuzumab is found above in the *Drug Update* section. For full details about Policy III-190, please see the <u>November 2019</u> issue of the Systemic Therapy Update. All Systemic Therapy policies can be found on the Shared Health Organizations Portal (SHOP) <u>BC Cancer page</u>.

Drug Shortages

Full details about new, ongoing or resolved drug shortages, including recommended treatment alternatives, can be found in the briefing notes and/or email communications previously circulated to BC Cancer and the Community Oncology Network (CON).

Updated

Raltitrexed

(Adapted from BC Cancer email communication 22Jan2020)

Raltitrexed is available on allocation and mitigation strategies can now be lifted.

Resolved

Tamoxifen

(Adapted from BC Cancer email communication 13Jan2020)

Tamoxifen supplies are now available.

Cancer Drug Manual[©]

BC Cancer Drug Monographs, Patient Handouts and the Chemotherapy Preparation and Stability Chart can be accessed from the Cancer Drug Manual[©].

New Documents

The **Durvalumab** Interim Monograph has been updated to the full **Monograph**, and the **Patient Handout** has been developed. Expert review was provided by Dr. Angela Chan (medical oncologist) and Alysha Bharmal (pharmacist) of the BC Cancer Lung Tumour Group. The full monograph contains expanded sections, including *Pharmacokinetics* and *Special Precautions*. Durvalumab is a PD-L1 checkpoint inhibitor that has been implemented at BC Cancer for the treatment of patients with NSCLC (see *Editor's Choice* for ULULADUR announcement). The usual dose is 10 mg/kg IV administered every 2 weeks. Durvalumab was previously added to the **Chemotherapy Preparation and Stability Chart** and has been evaluated for the **Hazardous Drug List**.

Highlights of these documents include:

- infusion-related reactions are reported in up to 2% of patients
- immune-related adverse events may be life threatening; prompt management is important and may include withholding durvalumab, and administering systemic corticosteroids and/or supportive care
- severe infections such as sepsis have been reported

Revised Documents

Highlights of key changes are listed below:

Trastuzumab Monograph, Patient Handout and Chemotherapy Preparation and Stability Chart

Uses: added brand names for all available biosimilars

Supply and Storage: added brand-specific information for all available biosimilars

Patient Handout: added brand names for all available biosimilars

Chemotherapy Preparation and Stability Chart: added brand-specific information for all biosimilars

Chemotherapy Preparation and Stability Chart

Pembrolizumab: updated Merck brand with extended stability

Rituximab: updated product stability in NS and D5W

Retired Documents

Aprepitant, Metoclopramide, Ondansetron and Prochlorperazine Patient Handouts have been retired.

CDM Writer Announcement

The Cancer Drug Manual[©] writing team would like to bid farewell to exiting CDM writer **Lisa Wanbon** who will be returning to her clinical pharmacist position at BC Cancer – Victoria. The team would like to thank Lisa for her many contributions to the Cancer Drug Manual[©] during her secondment as a writer. The team would also like to extend a warm welcome to the new CDM writer, **Alysha Bharmal**. Alysha is a clinical pharmacist at BC Cancer – Surrey. Welcome Alysha!

Benefit Drug List

New Programs

Effective 01 February 2020, the following new treatment program has been added to the BC Cancer Benefit Drug List:

Protocol Title	Protocol Code	Benefit Status
Treatment of Locally Advanced Non-Small Cell Lung Cancer using Durvalumab	ULULADUR	Restricted

Revised Programs

Effective 01 February 2020, the following treatment programs have been transferred to Class I status on the BC Cancer Benefit Drug List:

Protocol Title	Protocol Code	Benefit Status
Palliative Treatment of Advanced Pancreatic Neuroendocrine Tumours using Everolimus	GIPNEVER	Class I (previously Restricted)
Palliative Treatment of Advanced Pancreatic Neuroendocrine Tumours using Sunitinib	GIPNSUNI	Class I (previously Restricted)
Treatment of Advanced Hepatocellular Carcinoma using Regorafenib	GIREGO	Class I (previously Restricted)
Third-Line Therapy of Advanced Gastrointestinal Stromal Cell Tumours (GIST) using Regorafenib	SAAVGR	Class I (previously Restricted)
Denosumab for Neoadjuvant Use in Patients with Non-Metastatic Operable Giant Cell Tumour of the Bone	SANADENO	Class I (previously Restricted)
Therapy for Advanced Solitary Fibrous Tumours and Hemangiopericytoma using Temozolomide and Bevacizumab	SATEMBEV	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 approval are prefixed with the letter **U**.

New Pro	New Protocols, PPPOs and Patient Handouts (new documents checked ☑)						
Code	Protocol	PPPO	Patient Handout	Protocol Title			
ULULADUR		$\overline{\checkmark}$	$\overline{\checkmark}$	Treatment of Locally Advanced Non-Small Cell Lung Cancer using Durvalumab			

Code	Protocol	PPPO	Patient Handout	Protocol Title
BRAJAC		Antiemetics updated; Institutional name and logo updated		Adjuvant Therapy for Breast Cancer using Doxorubicin and Cyclophosphamide
BRAJACT		Antiemetics updated; Institutional name and logo updated		Neoadjuvant or Adjuvant Therapy for Breast Cancer using Doxorubicin and Cyclophosphamide followed by Paclitaxel
BRAJACTG		Antiemetics updated; Institutional name and logo updated		Neoadjuvant or Adjuvant Therapy for Breast Cancer using Dose-Dense Therapy: Doxorubicin and Cyclophosphamide followed by Paclitaxel
BRAJACTT	Trastuzumab brand name removed; Protocol Title updated; AST replaced with ALT	Trastuzumab brand name removed; Pharmacy Selection Box added; Antiemetics updated; AST replaced with ALT; Institutional name and logo updated	Trastuzumab brand name removed; Institutional name and logo updated	Neoadjuvant or Adjuvant Therapy for Breast Cancer using Doxorubicin and Cyclophosphamide followed by Paclitaxel and Trastuzumab
BRAJACTTG	Trastuzumab brand name removed; Protocol Title updated; AST replaced with ALT	Trastuzumab brand name removed; Pharmacy Selection Box added; Antiemetics updated; AST replaced with ALT; Institutional name and logo updated	Trastuzumab brand name removed; Institutional name and logo updated	Neoadjuvant or Adjuvant Therapy for Breast Cancer using Dose-Dense Therapy: Doxorubicin and Cyclophosphamide followed by Paclitaxel and Trastuzumab
BRAJACTW		Antiemetics updated		Neoadjuvant or Adjuvant Therapy for Early Breast Cancer using Doxorubicin and Cyclophosphamide followed by Weekly Paclitaxel

Revised Protocols, PPPOs and Patient Handouts (revisions in respective columns)						
Code	Protocol	РРРО	Patient Handout	Protocol Title		
BRAJDAC		Antiemetics updated		Neoadjuvant or Adjuvant Therapy for Breast Cancer using Cyclophosphamide, Doxorubicin and Docetaxel		
BRAJDCARBT	Trastuzumab brand name removed; Protocol Title updated	Trastuzumab brand name removed; Pharmacy Selection Box added	Trastuzumab brand name removed; Institutional name and logo updated	Neoadjuvant or Adjuvant Therapy for Breast Cancer using Docetaxel, Carboplatin and Trastuzumab		
BRAJFEC		Antiemetics updated; Institutional name and logo updated		Adjuvant Therapy for Breast Cancer using Fluorouracil, Epirubicin and Cyclophosphamide		
BRAJFECD		Antiemetics updated; Institutional name and logo updated		Neoadjuvant or Adjuvant Therapy for Breast Cancer using Fluorouracil, Epirubicin, Cyclophosphamide and Docetaxel		
BRAJFECDT	Trastuzumab brand name removed; Protocol Title updated	Trastuzumab brand name removed; Pharmacy Selection Box added; Antiemetics updated; AST replaced with ALT; Institutional name and logo updated		Neoadjuvant or Adjuvant Therapy for Breast Cancer using Fluorouracil, Epirubicin and Cyclophosphamide followed by Docetaxel and Trastuzumab		
BRAJTDC	Trastuzumab brand name removed; Protocol Title updated	Trastuzumab brand name removed; Pharmacy Selection Box added		Neoadjuvant or Adjuvant Therapy for Breast Cancer using Trastuzumab, Docetaxel and Cyclophosphamide		
BRAJTR	Trastuzumab brand name removed; Protocol Title updated	Trastuzumab brand name removed; Pharmacy Selection Box added; Institutional name and logo updated	Trastuzumab brand name removed; Institutional name and logo updated	Adjuvant Therapy for Breast Cancer using Trastuzumab following the Completion of Chemotherapy (Sequential)		
UBRAJTTW	Trastuzumab brand name removed; Protocol Title updated	Trastuzumab brand name removed; Pharmacy Selection Box added; AST replaced with ALT	Trastuzumab brand name removed	Adjuvant Therapy for Breast Cancer using Weekly Paclitaxel and Trastuzumab		
BRAVAC		Antiemetics updated; Institutional name and logo updated		Palliative Therapy for Metastatic Breast Cancer using Doxorubicin and Cyclophosphamide		
UBRAVPALAI	Dose Modifications clarified (hematological)			Therapy of Advanced Breast Cancer using Palbociclib and Aromatase Inhibitor with or without LHRH Agonist		

Revised Protocols, PPPOs and Patient Handouts (revisions in respective columns)						
Code	Protocol	РРРО	Patient Handout	Protocol Title		
BRAVPAM	Dose Modifications clarified (renal dysfunction)			Prevention of Skeletal-Related Events Secondary to Breast Cancer Metastases using Pamidronate		
BRAVPTRAD		'No substitution' instruction added to trastuzumab (HERCEPTIN®)		Palliative Therapy for Metastatic Breast Cancer using Pertuzumab, Trastuzumab (HERCEPTIN®) and Docetaxel as First-Line Treatment for Advanced Breast Cancer		
BRAVPTRAT		'No substitution' instruction added to trastuzumab (HERCEPTIN®)		Palliative Therapy for Metastatic Breast Cancer using Pertuzumab, Trastuzumab (HERCEPTIN®) and Paclitaxel as First-Line Treatment for Advanced Breast Cancer		
UBRAVRIBAI	Dose Modifications clarified (hematological)			Therapy of Advanced Breast Cancer using Ribociclib and Aromatase Inhibitor with or without LHRH Agonist		
BRAVTCAP	Trastuzumab brand name removed; Protocol Title updated	Trastuzumab brand name removed; Pharmacy Selection Box added		Palliative Therapy for Metastatic Breast Cancer using Trastuzumab and Capecitabine		
BRAVTPCARB	Trastuzumab brand name removed; Protocol Title updated; AST replaced with ALT; Institutional name updated	Trastuzumab brand name removed; Pharmacy Selection Box added; AST replaced with ALT; Institutional name and logo updated	Trastuzumab brand name removed; Institutional name and logo updated	Palliative Therapy for Metastatic Breast Cancer using Trastuzumab, Paclitaxel and Carboplatin as First-Line Treatment for Advanced Breast Cancer		
BRAVTR	Trastuzumab brand name removed; Protocol Title updated	Trastuzumab brand name removed; Pharmacy Selection Box added; AST replaced with ALT; Institutional name and logo updated	Trastuzumab brand name removed; Institutional name and logo updated	Palliative Therapy for Metastatic Breast Cancer using Trastuzumab		
BRAVTRAD	Trastuzumab brand name removed; Protocol Title updated; Institutional name updated	Trastuzumab brand name removed; Pharmacy Selection Box added; AST replaced with ALT; Institutional name and logo updated		Palliative Therapy for Metastatic Breast Cancer using Trastuzumab and Docetaxel as First-Line Treatment for Advanced Breast Cancer		
BRAVTRAP	Trastuzumab brand name removed; Protocol Title updated; AST replaced with ALT; Institutional name updated	Trastuzumab brand name removed; Pharmacy Selection Box added; AST replaced with ALT; Institutional name and logo updated	Trastuzumab brand name removed; Institutional name and logo updated	Palliative Therapy for Metastatic Breast Cancer using Trastuzumab and Paclitaxel as First-Line Treatment for Advanced Breast Cancer		

Revised Protocols, PPPOs and Patient Handouts (revisions in respective columns)						
Code	Protocol	РРРО	Patient Handout	Protocol Title		
BRAVTRVIN	Trastuzumab brand name removed; Protocol Title updated	Trastuzumab brand name removed; Pharmacy Selection Box added	Trastuzumab brand name removed; Institutional name and logo updated	Palliative Therapy for Metastatic Breast Cancer using Trastuzumab and Vinorelbine		
BRLAACD		Antiemetics updated; Institutional name and logo updated		Treatment of Locally Advanced Breast Cancer using Doxorubicin and Cyclophosphamide followed by Docetaxel		
BRLAACDT	Trastuzumab brand name removed; Protocol Title updated; AST replaced with ALT; Institutional name updated	Trastuzumab brand name removed; Pharmacy Selection Box added; Antiemetics updated; AST replaced with ALT; Institutional name and logo updated	Trastuzumab brand name removed; Institutional name and logo updated	Treatment of Locally Advanced Breast Cancer using Doxorubicin and Cyclophosphamide followed by Docetaxel and Trastuzumab		
BRLATACG		Antiemetics updated; Institutional name and logo updated		Neoadjuvant Therapy for Breast Cancer using Dose-Dense Therapy: Paclitaxel followed by Doxorubicin and Cyclophosphamide		
BRLATWAC		Antiemetics updated		Neoadjuvant Therapy for Locally Advanced Breast Cancer using Weekly Paclitaxel followed by Doxorubicin and Cyclophosphamide		
GIAVPG	Treatment duration clarified			First-line Palliative Chemotherapy for Advanced Gallbladder Cancer and Cholangiocarcinoma using Gemcitabine and Cisplatin		
GIENDO2		Antiemetics updated		Palliative Therapy for Pancreatic Endocrine Tumours using Streptozocin and Doxorubicin		
GIFIRINOX		Antiemetics updated		Palliative Combination Chemotherapy for Advanced Pancreatic Adenocarcinoma using Irinotecan, Oxaliplatin, Fluorouracil and Leucovorin		
GIGAJCPRT		Antiemetics updated; Institutional name and logo updated		Adjuvant Chemotherapy of Gastric Cancer Patients with Completely Resected Gastric Cancer using Cisplatin and Capecitabine and Radiation Therapy		
GIGAVCC		Antiemetics updated		Palliative Therapy of Metastatic or Locally Advanced Anal Squamous Cell Carcinoma using Cisplatin and Capecitabine		

Revised Protocols, PPPOs and Patient Handouts (revisions in respective columns)						
Code	Protocol	РРРО	Patient Handout	Protocol Title		
GIGAVCCT	Trastuzumab brand name removed; Protocol Title updated	Trastuzumab brand name removed; Pharmacy Selection Box added; Antiemetics updated	Trastuzumab brand name removed	Palliative Treatment of Metastatic or Locally Advanced Gastric, Gastroesophageal Junction or Esophageal Adenocarcinoma using Cisplatin, Capecitabine and Trastuzumab		
GIGAVCFT	Trastuzumab brand name removed; Protocol Title updated	Trastuzumab brand name removed; Pharmacy Selection Box added; Antiemetics updated	Typo corrected	Palliative Treatment of Metastatic or Inoperable, Locally Advanced Gastric or Gastroesophageal Junction Adenocarcinoma using Cisplatin, Infusional Fluorouracil and Trastuzumab		
GIGAVCOXT	Trastuzumab brand name removed; Protocol Title updated	Trastuzumab brand name removed; Pharmacy Selection Box added	Trastuzumab brand name removed; Title corrected	Palliative Treatment of Metastatic or Locally Advanced Gastric, Gastroesophageal Junction or Esophageal Adenocarcinoma using Capecitabine, Oxaliplatin and Trastuzumab		
GIGAVEOCAP		Antiemetics updated		Palliative Therapy for Metastatic or Locally Advanced Gastric or Esophagogastric Cancer using Epirubicin, Oxaliplatin and Capecitabine		
GIGAVEOF		Antiemetics updated		Palliative Therapy for Metastatic or Locally Advanced Gastric or Esophagogastric Cancer using Epirubicin, Oxaliplatin and Infusional Fluorouracil		
GIGAVFFOXT	Trastuzumab brand name removed; Protocol Title updated	Trastuzumab brand name removed; Pharmacy Selection Box added	Trastuzumab brand name removed	Palliative Treatment of Metastatic or Locally Advanced Gastric, Gastroesophageal Junction or Esophageal Adenocarcinoma using Oxaliplatin, Fluorouracil, Leucovorin and Trastuzumab		
GIGAVRAMT		Chemotherapy section reformatted for clarity; Additional Dose Modification section revised (day 15 removed)		Second-Line Therapy for Metastatic or Locally Advanced Gastric or Gastroesophageal Junction Cancer using Weekly Paclitaxel and Ramucirumab		
GIGAVTR	Trastuzumab brand name removed; Protocol Title updated	Trastuzumab brand name removed; Pharmacy Selection Box added	Institutional name and logo updated	Continuation of Palliative Treatment of Metastatic or Inoperable, Locally Advanced Gastric or Gastroesophageal Junction Adenocarcinoma using Trastuzumab		
GIGECC		Antiemetics updated; Institutional name and logo updated		Perioperative Treatment of Resectable Adenocarcinoma of the Stomach, Gastroesophageal Junction or Lower 1/2 Esophagus using Epirubicin, Cisplatin and Capecitabine		
GIPAJFIROX		Antiemetics updated		Adjuvant Chemotherapy for Resected Pancreatic Adenocarcinoma using Irinotecan, Oxaliplatin, Fluorouracil and Leucovorin		

Revised Protocols, PPPOs and Patient Handouts (revisions in respective columns)						
Code	Protocol	РРРО	Patient Handout	Protocol Title		
GIPNEVER	Protocol Code (U removed) and Eligibility revised	CAP requirement and U in Protocol Code removed	Protocol Code revised (U removed)	Palliative Treatment of Advanced Pancreatic Neuroendocrine Tumours using Everolimus		
GIPNSUNI	Protocol Code (U removed) and Eligibility revised; Tests clarified; Institutional name and Contact Physician updated	CAP requirement and U in Protocol Code removed; Tests clarified; Institutional name and logo updated	Protocol Code revised (U removed) and Institutional name and logo updated	Palliative Treatment of Advanced Pancreatic Neuroendocrine Tumours using Sunitinib		
GIREGO	Protocol Code (U removed) and Eligibility revised	CAP requirement and U in Protocol Code removed		Treatment of Advanced Hepatocellular Carcinoma using Regorafenib		
GOBEP		Antiemetics updated		Therapy of Non-Dysgerminomatous Ovarian Germ Cell Cancer using Bleomycin, Etoposide and Cisplatin		
GOCISP		Antiemetics updated		Alternative Treatment of Gynecological Malignancies using Cisplatin and Paclitaxel		
GOCXAJCAT	Antiemetics updated			Primary Adjuvant Treatment of Adenocarcinoma/ Adenosquamous Cancer of the Cervix with Carboplatin and Paclitaxel Preceding or Following Irradiation with or without Cisplatin		
GOEP		Antiemetics updated		Therapy of Non-Dysgerminomatous Ovarian Germ Cell Cancer using Etoposide and Cisplatin		
GOOVCIS		Antiemetics updated; Institutional name and logo updated		Therapy for Invasive Epithelial Ovarian Cancer using Cisplatin		
GOSMCCRT		Antiemetics updated (cycle C PPPO); Institutional name and logo updated		Treatment of Small Cell or Neuroendocrine Carcinoma of Gynecologic System Origin using Paclitaxel, Cisplatin, Etoposide and Carboplatin with Radiation		
GUAJPG		Antiemetics updated		Adjuvant Therapy for Urothelial Carcinoma using Cisplatin and Gemcitabine		
GUAVPG		Antiemetics updated		Palliative Therapy for Urothelial Carcinoma using Cisplatin and Gemcitabine		
GUBEP		Antiemetics updated		Curative Therapy for Germ Cell Cancer using Bleomycin, Etoposide and Cisplatin		

Revised F	Protocols, PPPOs	and Patient Hando	uts (revision.	s in respective columns)
Code	Protocol	PPPO	Patient Handout	Protocol Title
GUBGEM	Intraoperative dosing added; Eligibility, administration and treatment duration updated	Intraoperative dosing added; Administration and Return Appointment Orders updated		Intravesical Therapy for Non-Muscle-Invasive Bladder Cancer using Gemcitabine
GUBMITO	Intraoperative dosing added; Eligibility, administration and treatment duration updated	Intraoperative dosing added; Administration and Return Appointment Orders updated		Intravesical Therapy for Non-Muscle-Invasive Bladder Cancer using Mitomycin
GUEDPM		Antiemetics updated; Institutional name and logo updated		Treatment of Metastatic Adrenocortical Cancer with Etoposide, Doxorubicin, Cisplatin and Mitotane
GUEP		Antiemetics updated		Therapy for Nonseminoma Germ Cell Cancer using Etoposide-Cisplatin
GUMVAC		Antiemetics updated; Institutional name and logo updated		Therapy for Transitional Cell Cancers of the Urothelium using Methotrexate, Vinblastine, Doxorubicin and Cisplatin
GUNAJPG		Antiemetics updated		Neoadjuvant Therapy for Urothelial Carcinoma using Cisplatin and Gemcitabine
GUPLHRH	Treatment options, institutional name and Contact Physician updated	Treatment options and institutional name and logo updated		Therapy for Prostate Cancer using LHRH Agonist (Goserelin, Leuprolide or Buserelin)
HNAVFUP	Antiemetics updated	Antiemetics updated		Treatment of Advanced Squamous Cell Carcinoma of the Head and Neck Cancer using Fluorouracil and Platinum
HNAVPC		Antiemetics updated		Treatment for Unresectable, Locoregionally Recurrent or Metastatic Squamous Cell Carcinoma of the Head and Neck using Paclitaxel and Cisplatin or Carboplatin
HNAVPD		Antiemetics updated; Institutional name and logo updated		Treatment of Recurrent or Metastatic Squamous Cell Carcinoma of the Head and Neck with Platinum and Docetaxel
HNAVPE		Antiemetics updated; Institutional name and logo updated		Treatment of Recurrent and Metastatic Squamous Cell Cancer with Platinum and Etoposide
HNLAALTPRT	Antiemetics updated	Antiemetics updated		Treatment of Locally Advanced (Alternate) Head and Neck Cancer using Cisplatin during Radiation Therapy

Revised P	Protocols, PPPOs	and Patient Hando	outs (revision.	s in respective columns)
Code	Protocol	РРРО	Patient Handout	Protocol Title
UHNLADCF	Antiemetics updated	Antiemetics updated	Antiemetics and fatigue management updated; Institutional name and logo updated	Treatment of Locally Advanced Squamous Cell Carcinoma of the Head and Neck with Docetaxel, Cisplatin and Infusional Fluorouracil
HNLAPRT	Antiemetics updated	Antiemetics updated (short hydration PPPO)		Combined Chemotherapy (Cisplatin) and Radiation Treatment for Locally Advanced Squamous Cell Carcinoma of the Head and Neck
HNNAVFUP	Antiemetics updated	Antiemetics updated		Treatment for Advanced Nasopharyngeal Cancer of the Head and Neck using Platinum and Fluorouracil
HNNAVPE		Antiemetics updated; Institutional name and logo updated		Treatment of Recurrent and/or Metastatic Nasopharyngeal Cancer with Platinum and Etoposide
HNNAVPG	Antiemetics updated	Antiemetics updated		Treatment of Locoregionally Recurrent and/or Metastatic Nasopharyngeal Cancer with Platinum and Gemcitabine
HNNLAPG		Antiemetics updated; Institutional name and logo updated		Induction Treatment of Locally Advanced Nasopharyngeal Cancer with Cisplatin and Gemcitabine
HNSAVFAC		Antiemetics updated; Institutional name and logo updated		Palliative Therapy for Advanced Salivary Gland Cancers using Cyclophosphamide, Doxorubicin and Fluorouracil
HNSAVFUP	Antiemetics updated	Antiemetics updated		Treatment of Advanced Head and Neck Cancer using Cisplatin and Fluorouracil
HNSAVNP		Antiemetics updated		Treatment of Advanced Salivary Gland Cancers with Cisplatin and Vinorelbine
HNSAVPAC		Antiemetics updated; Institutional name and logo updated		Treatment of Advanced Salivary Gland Cancers with Platinum, Doxorubicin and Cyclophosphamide
LUAJNP		Antiemetics updated		Adjuvant Cisplatin and Vinorelbine following Resection of Non-Small Cell Lung Cancer
LUAVDC		Antiemetics updated		First-Line Treatment of Advanced Non-Small Cell Lung Cancer with Cisplatin and Docetaxel
LUAVPG		Antiemetics updated		Treatment of Advanced Non-Small Cell Lung Cancer with Platinum and Gemcitabine

Revised P	Revised Protocols, PPPOs and Patient Handouts (revisions in respective columns)				
Code	Protocol	РРРО	Patient Handout	Protocol Title	
LUAVPP		Antiemetics updated		First-Line Treatment of Advanced Non-Small Cell Lung Cancer with Platinum and Pemetrexed	
LUMMPG		Antiemetics updated		Treatment of Malignant Mesothelioma with Platinum and Gemcitabine	
LUMMPP		Antiemetics updated		Treatment of Malignant Mesothelioma with Platinum and Pemetrexed	
LUOTCAV		Antiemetics updated		Treatment of Thymoma/Thymic Carcinoma with Cyclophosphamide, Doxorubicin and Vincristine	
LUOTPAC		Antiemetics updated		Treatment of Thymoma with Platinum, Doxorubicin and Cyclophosphamide	
LUSCCAV		Antiemetics updated		Treatment of Extensive Small Cell Lung Cancer with Cyclophosphamide, Doxorubicin and Vincristine	
LUSCPI		Antiemetics updated		Second-Line Treatment of Extensive Stage Small Cell Lung Cancer with Irinotecan with or without Platinum	
LYABVD		Antiemetics updated		Treatment of Hodgkin's Disease with Doxorubicin, Bleomycin, Vinblastine and Dacarbazine	
ULYBRENTUX	Eligibility clarified; Institutional name updated			Treatment of Hodgkin Lymphoma and Anaplastic Large Cell Lymphoma with Brentuximab Vedotin	
LYCHOP		Antiemetics updated; Institutional name and logo updated		Treatment of Lymphoma with Doxorubicin, Cyclophosphamide, Vincristine and Prednisone	
LYCHOPR	Eligibility updated	Antiemetics updated		Treatment of Lymphoma with Doxorubicin, Cyclophosphamide, Vincristine, Prednisone and Rituximab	
LYCHOPRMTX	Alkalinization regimen revised	Antiemetics updated		Central Nervous System Prophylaxis with High-Dose Methotrexate, CHOP and Rituximab in Diffuse Large B-Cell Lymphoma	
LYCODOXMR	Antiemetics updated; Cycle interval clarified; Tests revised	Antiemetics updated; Tests revised		Treatment of Burkitt's Lymphoma and Leukemia (ALL-L3) with Cyclophosphamide, Vincristine, Doxorubicin, Methotrexate, Leucovorin and Rituximab	

Revised P	Protocols, PPPOs	and Patient Hando	outs (revision.	s in respective columns)
Code	Protocol	PPPO	Patient Handout	Protocol Title
LYEPOCHR	Eligibility and Tests revised; Filgrastim dose and IT methotrexate interval clarified	Antiemetics updated; IT procedure and IT methotrexate interval clarified		Treatment of Lymphoma with Dose-Adjusted Etoposide, Doxorubicin, Vincristine, Cyclophosphamide, Prednisone and Rituximab with Intrathecal Methotrexate
LYGDP	Antiemetics updated	Antiemetics updated; Institutional name and logo updated		Treatment of Lymphoma with Gemcitabine, Dexamethasone and Cisplatin
LYGDPR	Antiemetics updated	Antiemetics updated		Treatment of Lymphoma with Gemcitabine, Dexamethasone and Cisplatin with Rituximab
LYHDMTXR	Protocol Title and Eligibility revised			Treatment of Secondary CNS Leptomeningeal Lymphoma or Recurrent Intracerebral Lymphoma with High-Dose Methotrexate
LYIVACR	Cycle interval clarified; Tests revised	Tests revised; Signature requirement and IT procedure clarified		Treatment of Burkitt Lymphoma and Leukemia (ALL-L3) with Ifosfamide, Mesna, Etoposide, Cytarabine (IVAC) and Rituximab
ULYNIV	Exclusions and Tests updated	Tests updated		Treatment of Relapsed or Refractory Hodgkin Lymphoma using Nivolumab
ULYNIV4	Exclusions and Tests updated	Tests updated		Treatment of Relapsed or Refractory Hodgkin Lymphoma using 4-Weekly Nivolumab
ULYVENETO			Duration for allopurinol and hydration clarified	Treatment of Relapsed/Refractory Chronic Lymphocytic Leukemia or Small Lymphocytic Lymphoma using Venetoclax
ULYVENETOR	Eligibility clarified		Duration for allopurinol and hydration clarified	Treatment of Relapsed/Refractory Chronic Lymphocytic Leukemia or Small Lymphocytic Lymphoma using Venetoclax and Rituximab
UMYDARBD		Typo corrected (cycle 1 PPPO); Cyclophosphamide cycles clarified (cycle 2+ PPPO)		Treatment of Relapsed and Refractory Multiple Myeloma with Daratumumab in Combination with Bortezomib and Dexamethasone with or without Cyclophosphamide
SAAI	Antiemetics updated			Therapy for Advanced Soft Tissue Sarcoma using Doxorubicin and Ifosfamide-Mesna
SAAI3	Antiemetics updated			3-Day Doxorubicin-Ifosfamide-Mesna for Use in Patients with Advanced Soft Tissue Sarcoma
SAAJADIC		Antiemetics updated		Adjuvant Treatment of Patients with Soft Tissue Sarcoma using Doxorubicin and Dacarbazine

Revised F	Protocols, PPPOs	and Patient Hando	outs (revision	s in respective columns)
Code	Protocol	РРРО	Patient Handout	Protocol Title
SAAJAP	Antiemetics updated			Adjuvant Therapy for Osteosarcoma using Doxorubicin and Cisplatin
SAAVADIC		Antiemetics updated		Treatment of Patients with Soft Tissue Sarcoma using Doxorubicin and Dacarbazine
SAAVAP	Antiemetics updated			Therapy of Advanced Osteosarcoma using Doxorubicin and Cisplatin
SAAVGR	Protocol Code (U removed) and Eligibility revised	CAP requirement and U in Protocol Code removed		Third-Line Therapy of Advanced Gastrointestinal Stromal Cell Tumours (GIST) using Regorafenib
SAAVI	Antiemetics updated			Therapy for Advanced Soft Tissue Sarcoma using Ifosfamide
SAAVI3	Ifosfamide/mesna administration updated (separate bags via Y-site); Antiemetics updated			3-Day Ifosfamide for Use in Patients with Advanced Soft Tissue Sarcoma
SAAVIME3	Ifosfamide/mesna administration updated (separate bags via Y-site); Antiemetics updated			3-Day Etoposide & Ifosfamide-Mesna for Patients with Advanced Soft Tissue or Bony Sarcomas
SADTIC		Antiemetics updated		High-Dose Single Agent Dacarbazine for Metastatic Soft Tissue Sarcoma
SAIME		Antiemetics updated		Etoposide, Ifosfamide-Mesna for Use in Sarcomas
SANADENO	Protocol Code (U removed) and Eligibility revised	CAP requirement and U in Protocol Code removed		Denosumab for Neoadjuvant Use in Patients with Non-Metastatic Operable Giant Cell Tumour of the Bone
SATEMBEV	Protocol Code (U removed) and Eligibility revised	CAP requirement and U in Protocol Code removed		Therapy for Advanced Solitary Fibrous Tumours and Hemangiopericytoma using Temozolomide and Bevacizumab
SAVAC		Antiemetics updated		Treatment of Sarcomas with Vincristine, Doxorubicin and Cyclophosphamide
SAVDC		Antiemetics updated		Adjuvant Therapy for Rhabdomyosarcoma using Vincristine, Dactinomycin and Cyclophosphamide
SAVDCM		Antiemetics updated		Adjuvant Therapy for Rhabdomyosarcoma using Vincristine, Dactinomycin, Cyclophosphamide and Mesna

Revised Protocols, PPPOs and Patient Handouts (revisions in respective columns)				
Code	Protocol	РРРО	Patient Handout	Protocol Title
SCNAUSEA	Netupitant- palonosetron information added; Prophylactic Antiemetic Regimens table updated			Prevention and Treatment of Chemotherapy- Induced Nausea and Vomiting in Adults
USMAJNIV	Typo corrected (in Exclusions)			Adjuvant Treatment of Resected Stage III-IV NED Melanoma using Nivolumab
USMAJNIV4	Typo corrected (in Exclusions)			Adjuvant Treatment of Resected Stage III-IV NED Melanoma using 4-Weekly Nivolumab
USMAVPEM		Return Appointment Orders updated		Treatment of Unresectable or Metastatic Melanoma using Pembrolizumab
SMDTIC		Antiemetics updated; Institutional name and logo updated		Therapy for Metastatic Malignant Melanoma using High-Dose Single-Agent Dacarbazine

Resources and Contact Information			
Resource	Phone	Email / Toll Free / Fax	
Systemic Therapy Update: www.bccance	r.bc.ca/health-professionals/clinical-res	sources/systemic-therapy/systemic-therapy-updat	
Systemic Therapy Update Editor	604-877-6000 x 672649	bulletin@bccancer.bc.ca	
Oncology Drug Information	604-877-6275	druginfo@bccancer.bc.ca	
Cancer Drug Manual Editor	250-519-5500 x 693742	nbadry@bccancer.bc.ca	
Pharmacy Oncology Certification	250-712-3900 x 686820	rxchemocert@bccancer.bc.ca	
Nurse Educators	604-877-6000 x 672638	nursinged@bccancer.bc.ca	
Compassionate Access Program (CAP)	604-877-6277	cap bcca@bccancer.bc.ca fax 604-708-2026	
OSCAR	888-355-0355	oscar@bccancer.bc.ca fax 604-708-2051	
Library/Cancer Information	604-675-8003	toll free 888-675-8001 x 8003 requests@bccancer.bc.ca	
Library Document Delivery	604-675-8002	requests@bccancer.bc.ca	
Pharmacy Professional Practice	604-877-6000 x 672247	mlin@bccancer.bc.ca	
Professional Practice, Nursing	604-877-6000 x 672623	BCCancerPPNAdmin@ehcnet.phsa.ca	
Provincial Systemic Therapy Program	604-877-6000 x 672247	mlin@bccancer.bc.ca	
BC Cancer – Abbotsford	604-851-4710	toll free 877-547-3777	
BC Cancer – Kelowna	250-712-3900	toll free 888-563-7773	
BC Cancer – Prince George	250-645-7300	toll free 855-775-7300	
BC Cancer – Surrey	604-930-2098	toll free 800-523-2885	
BC Cancer – Vancouver	604-877-6000	toll free 800-663-3333	
BC Cancer – Victoria	250-519-5500	toll free 800-670-3322	

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