

## For Health Professionals Who Care for People with Cancer

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#### Resources and Contact Information

### Editor's Choice

#### New Programs

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

#### Gastrointestinal

**First-Line Treatment of Locally Advanced or Metastatic Gastroesophageal Cancer** — The BC Cancer Gastrointestinal Tumour Group is introducing two first-line options with combination chemotherapy and immune checkpoint inhibitor for patients with locally advanced or metastatic gastroesophageal cancer. Eligibility includes HER-2-negative esophageal carcinoma (adenocarcinoma or squamous cell carcinoma) or gastroesophageal junction (GEJ) adenocarcinoma, irrespective of PD-L1 status/CPS score.

- **Oxaliplatin, Capecitabine and Pembrolizumab (GIGAVCOXP):**

Cycle	Oxaliplatin	Capecitabine	Pembrolizumab
3 weeks	130 mg/m <sup>2</sup>	days 1-14	2 mg/kg

- **Oxaliplatin, Fluorouracil, Leucovorin and Pembrolizumab (GIGAVFFOXP):**

Cycle	Oxaliplatin	Fluorouracil/Leucovorin	Pembrolizumab
6 weeks	85 mg/m <sup>2</sup> every 2 weeks	5-FU/leucovorin bolus plus 5-FU infusion every 2 weeks	4 mg/kg

## Editor's Choice

Standard first-line chemotherapy for this patient population has typically included a platinum- and fluoropyrimidine-based regimen. The addition of pembrolizumab to standard first-line chemotherapy has demonstrated, for the first time, survival exceeding 12 months.<sup>1</sup> For both treatment protocols, the chemotherapy portion is continued until disease progression or unacceptable toxicity. Pembrolizumab continues until disease progression, unacceptable toxicity or to a maximum of 2 years of treatment.

Approval of these treatment programs is supported by the randomized, controlled phase III KEYNOTE-590 trial, which compared first-line chemotherapy (cisplatin and fluorouracil) plus pembrolizumab with chemotherapy alone in advanced esophageal and GEJ cancers.<sup>1</sup> At a median follow-up of 22.6 months, a significant overall survival (OS) and progression-free survival (PFS) benefit was reported in all patients randomized to the pembrolizumab group (OS: 12.4 months vs. 9.8 months, HR 0.73 95% CI 0.62-0.86; PFS: 6.3 months vs. 5.8 months, HR 0.65, 95% CI 0.55-0.76). No new safety signals were reported. The pembrolizumab group reported a higher incidence of immune-mediated adverse events (AEs) and infusion reactions (25.7% vs. 11.6%), hypothyroidism (10.8% vs. 6.5%), hyperthyroidism (5.7% vs. 0.8%), pneumonitis (6.2% vs. 0.5%) and discontinuation due to treatment-related AEs (19.5% vs. 11.6%).

While the KEYNOTE-590 trial used cisplatin and fluorouracil as the chemotherapy backbone, pERC agreed in their review that pembrolizumab could be added to other chemotherapy backbones used in the first-line setting such as oxaliplatin and capecitabine or fluorouracil (e.g., GIGAVCOX or GIGAVFOX).<sup>2</sup>

### References

- 1 Sun J-M, Shen L, Shah MA, et al. Pembrolizumab plus chemotherapy versus chemotherapy alone for first-line treatment of advanced oesophageal cancer (KEYNOTE-590): a randomised, placebo-controlled, phase 3 study. *Lancet* 2021;398(10302):759-771. [https://doi.org/10.1016/S0140-6736\(21\)01234-4](https://doi.org/10.1016/S0140-6736(21)01234-4)
- 2 CADTH Reimbursement Recommendation. Pembrolizumab (Keytruda®). *Canadian Journal of Health Technologies* 2021;1(12): 1-19. <https://www.cadth.ca/sites/default/files/DRR/2021/PC0250%20Keytruda%20-%20CADTH%20Final%20Rec.pdf>

## Provincial Systemic Therapy

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

### Updated: Holding Anticoagulants Prior to Intrathecal Drug Administration

**Procedure III-50: Administration of High Alert Medications by the Intrathecal Route via Lumbar Puncture or Ommaya Reservoir** has been updated effective 01 July 2022. Administration of an intrathecal drug while a patient is anticoagulated can result in bleeding and negative patient outcomes. Several lymphoma treatment protocols have recently been updated to ensure consistent language around the practice of holding anticoagulants prior to intrathecal drug administration. The following statement has been added to Procedure III-50 to align with the updated protocols: *“Ensure anticoagulants were held prior to intrathecal administration as per local guidelines for anticoagulation management.”*

All documents are available in the [Cancer Drug Manual<sup>®</sup>](#) 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 **Larotrectinib Interim Monograph** and **Patient Handout** have been developed with expert review provided by Dr. Ursula Lee (medical oncologist) of the BC Cancer Sarcoma Tumour Group and Dr. Jennifer Kendrick (clinical pharmacy specialist) of BC Children's Hospital. **Larotrectinib** is an inhibitor of Tropomyosin Receptor Kinase and is used in the treatment of Neurotrophic Tyrosine Receptor Kinase (*NTRK*) gene fusion-positive solid tumours. The usual dose is 100 mg orally twice daily.

Highlights from these documents include:

- larotrectinib is supplied as capsules and as an oral solution, which may be used interchangeably
- the oral solution requires refrigeration and expires 30 days after opening
- neurologic/psychiatric side effects are common and can include dizziness, cognitive impairment, mood disorders and sleep disturbances
- rare but serious side effects include sepsis, encephalopathy, brain edema and cerebrovascular accident

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

### Revised Documents

#### **Amivantamab Chemotherapy Preparation and Stability Chart**

Added marketed brand (Janssen)

*Product Stability* and *Special Precautions* (for SAP supply): updated instructions for protect from light

#### **Capecitabine Patient Handout**

*Side Effects*: updated nausea/vomiting and diarrhea sections in table to include new messaging about dehydration

#### **Fluorouracil IV Patient Handout**

*Side Effects*: updated diarrhea section in table to include new messaging about dehydration

#### **Irinotecan Patient Handout**

*Side Effects*: updated nausea/vomiting and diarrhea sections in table to include new messaging about dehydration

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

*Supply and Storage*: added marketed brand (Jazz)

*Solution Preparation and Compatibility (Additional information)*: added information pertaining to peripheral and central line administration and incompatibility with nylon in-line filters

***Chemotherapy Preparation and Stability Chart***: added marketed brand (Jazz)

## Cancer Drug Manual<sup>®</sup>

### Oxaliplatin Patient Handout

*Side Effects:* updated nausea/vomiting and diarrhea sections in table to include new messaging about dehydration; updated neuropathy information to include new messaging about balance and walking

### Ruxolitinib Monograph

*Uses:* updated to myelodysplastic neoplasms

*Cautions:* added information pertaining to monitoring for lipid disorders; updated *Pregnancy* and *Breastfeeding* sections (deleted outdated FDA Pregnancy Category; added new details)

*Dosage Guidelines:* updated platelet count parameters in Starting Dose table

### Trastuzumab Emtansine Monograph

*Cautions:* updated *Pregnancy* section (deleted outdated FDA Pregnancy Category; added new details)

*Parenteral Administration* table: deleted information pertaining to length of observation period (refer to protocol); added information pertaining to in-line filter

*Dosage Guidelines:* deleted Dose Reduction Levels table (refer to protocol)

## CDM Editorial Board Changes

The Cancer Drug Manual<sup>®</sup> Editorial Review Board would like to bid farewell to **Sanna Pellatt, CON Pharmacy Educator**, BC Cancer – Victoria. Thank you, **Sanna**, for your many contributions to the Cancer Drug Manual<sup>®</sup> board over the years. We wish you all the best in your retirement and future endeavours.

## BC Cancer Benefit Drug List

### New Programs

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

Protocol Title	Protocol Code	Benefit Status
First-Line Treatment of Locally Advanced or Metastatic Gastroesophageal Cancer using <b>Oxaliplatin, Capecitabine and Pembrolizumab</b>	<b>GIGAVCOXP</b>	Class I
First-Line Treatment of Locally Advanced or Metastatic Gastroesophageal Cancer using <b>Oxaliplatin, Fluorouracil, Leucovorin and Pembrolizumab</b>	<b>GIGAVFFOXP</b>	Class I
<b>Dinutuximab:</b> in combination with <b>irinotecan, temozolomide</b> and sargramostim for high-risk neuroblastoma in first relapse or determination of refractory disease	<b>Pediatric</b>	Class I

## BC Cancer Benefit Drug List

### Revised Programs

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

Protocol Title	Protocol Code	Benefit Status
<b>Dinutuximab:</b> in combination with <b>aldesleukin</b> , <b>tretinoin</b> and sargramostim for high-risk neuroblastoma with a response to prior first-line multi-agent, multimodal therapy	<b>Pediatric</b>	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
<b>GIGAVCOXP</b>	First-Line Treatment of Locally Advanced or Metastatic Gastroesophageal Cancer using Oxaliplatin, Capecitabine and Pembrolizumab	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>GIGAVFFOXP</b>	First-Line Treatment of Locally Advanced or Metastatic Gastroesophageal Cancer using Oxaliplatin, Fluorouracil, Leucovorin and Pembrolizumab	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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

Protocol Code	Protocol Title	Protocol	PPPO	Handout
<b>BR   Breast</b>				
<b>BRAJLHRHAI</b>	Neoadjuvant or Adjuvant Ovarian Suppression and Aromatase Inhibitor in Premenopausal Women with High-Risk Early Stage Breast Cancer	<i>Eligibility updated</i>	----	----
<b>CN   Neuro-Oncology</b>				
<b>CNBEV</b>	Summary for Palliative Therapy for Recurrent Malignant Gliomas using Bevacizumab with or without Concurrent Etoposide or Lomustine	<i>Tests clarified</i>	<i>Tests clarified</i>	----

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

Protocol Code	Protocol Title	Protocol	PPO	Handout
<b>GI   Gastrointestinal</b>				
<b>GICPART</b>	Curative Combined Modality Therapy for Carcinoma of the Anal Canal using Cisplatin, Capecitabine and Radiation Therapy	<i>Eligibility and Exclusion updated</i>	----	----
<b>GIEFFOXRT</b>	Combined Modality Therapy for Locally Advanced Esophageal Cancer using Oxaliplatin, Fluorouracil, Leucovorin and Radiation Therapy	<i>Precautions clarified</i>	----	----
<b>GIFIRINOX</b>	Palliative Combination Chemotherapy for Advanced Pancreatic Adenocarcinoma using Irinotecan, Oxaliplatin, Fluorouracil and Leucovorin	<i>Eligibility updated</i>	<i>Chemotherapy section: 'immediately followed by' removed</i>	----
<b>GIFUART</b>	Curative Combined Modality Therapy for Carcinoma of the Anal Canal using Mitomycin, Infusional Fluorouracil and Radiation Therapy	<i>Exclusion and Dose Modification updated</i>	----	----
<b>GIFUPART</b>	Curative Combined Modality Therapy for Carcinoma of the Anal Canal using Cisplatin, Infusional Fluorouracil and Radiation Therapy	<i>Eligibility, Exclusion and Dose Modification updated; Precautions clarified</i>	----	----
<b>GIGFLODOC</b>	Perioperative Treatment of Resectable Adenocarcinoma of the Stomach, Gastroesophageal Junction or Lower 1/3 Esophagus using Docetaxel, Oxaliplatin, Infusional Fluorouracil and Leucovorin	<i>Filgrastim dose and contact information updated</i>	----	----
<b>GIGFOLFIRI</b>	Second-Line Palliative Combination Chemotherapy for Metastatic Gastric or Esophageal Adenocarcinoma using Irinotecan, Fluorouracil and Leucovorin	<i>CAP statement removed</i>	-----	----
<b>GIPAJFIROX</b>	Adjuvant Chemotherapy for Resected Pancreatic Adenocarcinoma using Irinotecan, Oxaliplatin, Fluorouracil and Leucovorin	-----	<i>Chemotherapy section: 'immediately followed by' removed</i>	-----
<b>GIPAJGEM</b>	Adjuvant Chemotherapy for Pancreatic Adenocarcinoma using Gemcitabine	<i>Treatment clarified</i>	-----	-----
<b>GIYTT</b>	Yttrium-90 for Transarterial Radioembolisation (TARE)	<i>Treatment site added</i>	-----	-----
<b>GU   Genitourinary</b>				
<b>GUFUPRT</b>	Combined Modality Therapy for Squamous Cell Cancer of the Genitourinary System using Fluorouracil and Cisplatin with Radiation	<i>Precautions clarified</i>	----	----

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

Protocol Code	Protocol Title	Protocol	PPPO	Handout
<b>GUVIP2</b>	Consolidation and Salvage Therapy for Nonseminoma using Etoposide, Cisplatin, Ifosfamide and Mesna	<i>Precautions updated</i>	----	----
<b>HN   Head and Neck</b>				
<b>HNAVPC</b>	Treatment for Unresectable, Locoregionally Recurrent or Metastatic Squamous Cell Carcinoma of the Head and Neck using Paclitaxel and Cisplatin or Carboplatin	<i>Carboplatin dose clarified</i>	----	----
<b>LU   Lung</b>				
<b>LUAVPCIPNI</b>	First-Line Treatment of Advanced Squamous Non-Small Cell Lung Cancer with Paclitaxel, Carboplatin, Ipilimumab and Nivolumab	<i>Treatment schedule clarified; ipilimumab infusion time revised</i>	<i>Treatment schedule clarified; ipilimumab infusion time revised</i> <b>Cycle 1-2 &amp; Cycle 3+ PPPOs</b>	<i>Treatment schedule clarified</i>
<b>LUAVPPIPNI</b>	First-Line Treatment of Advanced Non-Squamous Non-Small Cell Lung Cancer with Platinum, Pemetrexed, Ipilimumab and Nivolumab	<i>Treatment schedule clarified; ipilimumab infusion time revised</i>	<i>Treatment schedule clarified; ipilimumab infusion time revised</i> <b>Cycle 1-2 &amp; Cycle 3+ PPPOs</b>	<i>Treatment schedule clarified</i>
<b>LUMMIPNI</b>	Treatment of Malignant Mesothelioma using Ipilimumab and Nivolumab	<i>Ipilimumab infusion time revised</i>	<i>Ipilimumab infusion time revised</i>	<i>Ipilimumab infusion time revised</i>
<b>LY   Lymphoma</b>				
<b>LYABVD</b>	Treatment of Hodgkin Lymphoma with Doxorubicin, Bleomycin, Vinblastine and Dacarbazine	<i>Precautions updated</i>	----	----
<b>LYCHOP</b>	Treatment of Lymphoma with Doxorubicin, Cyclophosphamide, Vincristine and Prednisone	<i>Recommendation for CNS prophylaxis with IT chemo removed; HBV DNA monitoring revised</i>	----	----
<b>LYCHOPR</b>	Treatment of Lymphoma with Doxorubicin, Cyclophosphamide, Vincristine, Prednisone and Rituximab	<i>Recommendation for CNS prophylaxis with IT chemo removed; HBV DNA monitoring revised</i>	----	----
<b>LYCVPPABO</b>	Treatment of Hodgkin Lymphoma with Cyclophosphamide, Vinblastine, Procarbazine, Prednisone, Doxorubicin, Vincristine and Bleomycin	<i>Precautions updated</i>	----	----
<b>LYOBBEND</b>	Treatment of Rituximab-Refractory Follicular Lymphoma (FL) with Obinutuzumab in Combination with Bendamustine	----	<i>Return Appointment Orders updated</i>	----

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

Protocol Code	Protocol Title	Protocol	PPPO	Handout
ULYROMI	Treatment of Relapsed or Refractory Peripheral T-Cell Lymphoma (PTCL) with Romidepsin	<i>Treatment duration updated</i>	-----	-----
LYVENETOR	Treatment of Relapsed/Refractory Chronic Lymphocytic Leukemia or Small Lymphocytic Lymphoma using Venetoclax and Rituximab	-----	<i>Lab test clarified</i> <b>Post ramp-up PPPO</b>	-----
<b>SA   Sarcoma</b>				
KSVB	Palliative Therapy for Kaposi's Sarcoma using Vinblastine Alternating with Vincristine	<i>Precautions updated</i>	-----	-----

## Resources and Contact Information

Resource	Phone	Email / Toll Free / Fax
Systemic Therapy Update: <a href="http://www.bccancer.bc.ca/health-professionals/clinical-resources/systemic-therapy/systemic-therapy-update">www.bccancer.bc.ca/health-professionals/clinical-resources/systemic-therapy/systemic-therapy-update</a>		
Systemic Therapy Update Editor	604-877-6000 x 672649	<a href="mailto:bulletin@bccancer.bc.ca">bulletin@bccancer.bc.ca</a>
Oncology Drug Information	604-877-6275	<a href="mailto:druginfo@bccancer.bc.ca">druginfo@bccancer.bc.ca</a>
Cancer Drug Manual Editor	250-519-5500 x 693742	<a href="mailto:nbadry@bccancer.bc.ca">nbadry@bccancer.bc.ca</a>
Pharmacy Oncology Certification	250-712-3900 x 686820	<a href="mailto:rxchemocert@bccancer.bc.ca">rxchemocert@bccancer.bc.ca</a>
Nurse Educators	604-877-6000 x 672638	<a href="mailto:nursinged@bccancer.bc.ca">nursinged@bccancer.bc.ca</a>
CAP – Compassionate Access Program	604-877-6277	<a href="mailto:cap_bcca@bccancer.bc.ca">cap_bcca@bccancer.bc.ca</a> fax 604-708-2026
OSCAR – Online System for Cancer Drugs Adjudication and Reimbursement	888-355-0355	<a href="mailto:oscar@bccancer.bc.ca">oscar@bccancer.bc.ca</a> fax 604-708-2051
Manufacturer Patient Assistance Programs: <a href="http://www.bccancer.bc.ca/mpap">http://www.bccancer.bc.ca/mpap</a>		
Library/Cancer Information	604-675-8003	<a href="mailto:requests@bccancer.bc.ca">requests@bccancer.bc.ca</a> toll free 888-675-8001 x 8003
Library Document Delivery	604-675-8002	<a href="mailto:requests@bccancer.bc.ca">requests@bccancer.bc.ca</a>
Pharmacy Professional Practice	604-877-6000 x 672247	<a href="mailto:mclin@bccancer.bc.ca">mclin@bccancer.bc.ca</a>
Professional Practice, Nursing	604-877-6000 x 672623	<a href="mailto:BCcancerPPNAdmin@ehcnet.phsa.ca">BCcancerPPNAdmin@ehcnet.phsa.ca</a>
Provincial Systemic Therapy	604-877-6000 x 672247	<a href="mailto:mclin@bccancer.bc.ca">mclin@bccancer.bc.ca</a>
BC Cancer – Abbotsford	604-851-4710	toll free 877-547-3777
BC Cancer – Kelowna	250-712-3900	toll free 888-563-7773
BC Cancer – Prince George	250-645-7300	toll free 855-775-7300
BC Cancer – Surrey	604-930-2098	toll free 800-523-2885
BC Cancer – Vancouver	604-877-6000	toll free 800-663-3333
BC Cancer – Victoria	250-519-5500	toll free 800-670-3322
Community Oncology Network (CON) sites: To update your contact information, please contact: <a href="mailto:bulletin@bccancer.bc.ca">bulletin@bccancer.bc.ca</a>		

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