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## EDITOR'S CHOICE

### Update on Pharmacy Guide to BCCA Chemotherapy Protocols

In November 2003, the “**Pharmacy Guide to BCCA Chemotherapy Protocols: The Clinical Interpretation and Application of Treatment Protocol Summaries**” was distributed to the pharmacists in the BC Cancer Agency regional centres and the Communities Oncology Network (CON) throughout the province. This resource, designed as a continuing education (CE) module, has been used by many pharmacists as a reference in day-to-day practice, a teaching tool for undergraduate and postgraduate pharmacy students, as well as to train new pharmacists orienting to oncology practice. The following review will summarize the evaluations received in response to those pharmacists participating in the CE program, and will discuss plans for future use of this resource.

To date, 41 pharmacists and/or pharmacy students have participated in the CE component of the Pharmacy Guide by answering the self-assessment questions to the case studies. Three CE units (CEUs) recognized by the UBC Continuing Pharmacy Professional Development are granted to those receiving a mark of 70% or greater. Submission of the evaluation form with the answer sheet is required in order to obtain the CEUs. All participants so far have qualified and received the CEUs.

In general, the learning module has received a positive response. The scale provided for evaluation ranged from 1 to 8 as follows:

- 1 = strongly disagree
- 2 = disagree
- 4 = agree
- 8 = strongly agree.

The majority of respondents agreed or strongly agreed that the education content of the material presented was appropriate for their professional role (95%), was applicable and useful to their practice (98%) and added to their

ability to manage their patients (96%). The level of difficulty of material presented was considered the respondents to be appropriate (98%), very comprehensive (93.5%) and clearly written (95%). Overall, 98% agreed the stated educational objectives had been met, 95% of respondents were very satisfied with the content and 96% agreed the test questions effectively assessed cognitive understanding of the material provided. The time required to complete the learning module ranged from less than 2 hours to more than 10 hours, with the majority (68%) requiring 2 - 6 hours.

Three specific areas for suggested changes were identified:

- comments regarding ambiguity in the wording of some questions
- comments regarding the discontinuation of some protocols since the Pharmacy Guide was first published
- requests for references to be provided for the case studies, such as a specific protocol or normal lab values.

When asked what topic would you like to see covered in a future lesson, numerous suggestions were presented, but the common request was for supportive care education; e.g., handling side effects, anti-emetics, GCSF, erythropoietin. This is a reaffirmation of the request for supportive care education that was identified in the needs survey done in the summer of 2002.

The writing of this learning module was in itself a learning process for the Pharmacy CON Educators involved. The evaluation process has furthered that learning. At present, there are no plans to reprint the Pharmacy Guide. The Pharmacy CON Educator group is currently exploring e-learning as a mode of delivering education, with the possibility of providing the Pharmacy Guide in this format. At that time, consideration will be given to revising the existing material, including correcting the ambiguity of some questions in the case studies. E-format lends itself to easy update of time-sensitive material, and as BC Cancer Agency protocols change, the issue of discontinued protocols in the self assessment portion will be easily addressed. Requests for references will not be provided at this time. Part of the learning process is being able to use resources to find the applicable protocols, such as the BC Cancer Agency website, or internal resources that are relevant to each individual facility, such as with lab values. Future revisions will involve consultation with the provincial drug information pharmacists.

In summary, the **Pharmacy Guide** has met with overall positive response. This resource can be used to achieve UBC-accredited CEUs, as a day-to-day reference, a teaching tool for pharmacy students, and to train new pharmacists in oncology practice. Many thanks to those of you participating in the CEU program and for taking the time to fill out the evaluation form. Your voice is heard and helps guide future development in continuing oncology pharmacy education.

Submitted by:

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Pharmacy CON Educator  
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## **CANCER DRUG MANUAL**

**Fluorouracil Monograph and Injection Handout** have been completely revised and updated. There have been changes and clarifications concerning extravasation, cryotherapy (ice chips), and dosing schedules. In the event of extravasation, fluorouracil is now considered an irritant, rather than a nonvesicant. Cryotherapy is useful for prevention of mucositis in patients receiving bolus doses of fluorouracil, and this information has been added to the monograph. Readers should note that cryotherapy should not be used with oxaliplatin-containing regimens. Finally, special issues related to dose and schedule have been highlighted. For example, care must be taken to distinguish doses acceptable for bolus administration and doses meant for continuous infusion. As well, the side effect profile of fluorouracil differs with different dosing schedules and with concurrent radiation. Watch for the **fluorouracil for skin handout** next month.

**Buserelin, Goserelin, Leuprolide** Two limited revisions have been made to the monographs and handouts of these Luteinizing Hormone-Releasing Hormone (LHRH) agonists. Caution on bone loss has been added to

both the monographs and handouts to alert the long-term risk for osteoporosis and potential fractures. The second revision was the deletion of potential thromboembolic events from the handouts, as reported incidence is not supported by current evidence.

**Chemotherapy Preparation and Stability Chart** Several limited revisions have been added to chart: information on Sigmacon and Mayne Pharma brands of oxaliplatin; stability of bortezomib; preferred diluent for carboplatin; and large vial size for docetaxel.

### NURSING ARTICLE OF THE MONTH

*Visovsky, C. The effects of neuromuscular alterations in elders with cancer. Seminars in Oncology Nursing 2006;22(1):36-42.*

This article discusses why elderly patients who receive neurotoxic chemotherapy drugs must be monitored carefully for changes in peripheral nerve and muscle function, and how these changes can significantly impact their ability to maintain physical function and independence.

(Available thorough the BCCA library or through the health librarian in your region)

### PROVINCIAL SYSTEMIC THERAPY PROGRAM POLICY

**Extravasation Management Policy (III-20)** has been revised to include bevacizumab and bortezomib under the “none” category in the extravasation hazard table. In addition, fluorouracil has been reclassified as an irritant (formerly “none”) based as current evidence supports the potential for some extravasation hazard.

### LIST OF NEW AND REVISED PROTOCOLS

The **BC Cancer Agency Protocol Summaries** are revised on a periodic basis. New and revised protocols for this month are listed below. Protocol codes for treatments requiring “Undesignated Indication” approval are prefixed with the letter **U**.

**Revised protocols:**

Code	Changes	Protocol Name
<b>BRAJGT</b>	<i>replaced by BRAJLHRHT</i>	Adjuvant therapy for breast cancer using a LHRH agonist and tamoxifen
<b>BRAJLHRHT</b>	<i>replacing BRAJGT</i>	Adjuvant therapy for breast cancer using a LHRH agonist and tamoxifen
<b>BRAVBT</b>	<i>replaced by BRAVLHRHT</i>	Palliative therapy for breast cancer using a LHRH agonist and tamoxifen
<b>BRAVLHRHT</b>	<i>replacing BRAVBT</i>	Palliative therapy for breast cancer using a LHRH agonist and tamoxifen
<b>GIFUR</b>	<i>replacing GIFUR2 and GIFUR3</i>	Combined modality adjuvant therapy for high risk rectal carcinoma using fluorouracil, folinic acid (leucovorin) and radiation therapy
<b>GIFUR2</b>	<i>replaced by GIFUR</i>	Combined modality adjuvant therapy for high risk rectal carcinoma using fluorouracil, leucovorin, and radiation therapy
<b>GIFUR3</b>	<i>replaced by GIFUR</i>	Combined modality adjuvant therapy for high risk rectal carcinoma using fluorouracil, folinic acid (leucovorin) and radiation therapy

### UNDESIGNATED INDICATION REQUEST

**"Medication dispensing at" portion of the Undesignated Indication Request Form** Please ensure that the data provided in the "Medication dispensing at" portion of the Undesignated Indication Request Form accurately represents the location *where the patient will be receiving/picking up the medication*. This will ensure

that the appropriate pharmacy is notified of the approval and will thereby minimize delays in prescription filling and will also help prevent requests for redundant applications.

As we move toward computerization of the undesignated application process, it becomes more important that this portion of the form is completed correctly, as it will be used as a triaging mechanism for automatic notification of application results.

If you have any questions or concerns, please contact the Undesignated Requests clerk at 604-877-6277 or via e-mail: [undesignated@bccancer.bc.ca](mailto:undesignated@bccancer.bc.ca)

Submitted by:

Suzanne C. Malfair Taylor  
Pharmacoeconomics Pharmacist  
BC Cancer Agency

### **LIST OF NEW AND REVISED PRE-PRINTED ORDERS**

The **INDEX to BC Cancer Agency Pre-printed Orders** are revised on a periodic basis. The revised pre-printed orders for this month are listed below.

#### **Revised pre-printed orders:**

<b>Code</b>	<b>Changes</b>	<b>Protocol Name</b>
<b>BRAJACTG</b>	<i>typo corrected</i>	Adjuvant therapy for breast cancer using dose dense therapy: doxorubicin and cyclophosphamide followed by paclitaxel
<b>BRAJACTT</b>	<i>Revised ANC and platelet criteria</i>	Adjuvant Therapy for Breast Cancer using Doxorubicin and Cyclophosphamide followed by Paclitaxel and Trastuzumab
<b>BRAJGT</b>	<i>replaced by BRAJLHRHT</i>	Adjuvant therapy for breast cancer using a LHRH agonist and tamoxifen
<b>BRAJLHRHT</b>	<i>replacing BRAJAT</i>	Adjuvant therapy for breast cancer using a LHRH agonist and tamoxifen
<b>BRAVBT</b>	<i>replaced by BRAVLHRHT</i>	Palliative therapy for breast cancer using a LHRH agonist and tamoxifen
<b>BRAVGEMT</b>	<i>tests clarified</i>	Palliative therapy for metastatic breast cancer using gemcitabine and paclitaxel
<b>BRAVLHRHT</b>	<i>replacing BRAVBT</i>	Palliative therapy for breast cancer using a LHRH agonist and tamoxifen

## WEBSITE RESOURCES

The following are available on the BC Cancer Agency website ([www.bccancer.bc.ca](http://www.bccancer.bc.ca)) under the Health Professionals Info section:

Reimbursement and Forms: Benefit Drug List, Class II, Undesignated Indication	<a href="http://www.bccancer.bc.ca/HPI/ChemotherapyProtocols/Forms">www.bccancer.bc.ca/HPI/ChemotherapyProtocols/Forms</a>
Cancer Drug Manual	<a href="http://www.bccancer.bc.ca/cdm">www.bccancer.bc.ca/cdm</a>
Cancer Management Guidelines	<a href="http://www.bccancer.bc.ca/CaMgmtGuidelines">www.bccancer.bc.ca/CaMgmtGuidelines</a>
Cancer Chemotherapy Protocols	<a href="http://www.bccancer.bc.ca/ChemoProtocols">www.bccancer.bc.ca/ChemoProtocols</a>
Cancer Chemotherapy Pre-Printed Orders	<a href="http://www.bccancer.bc.ca/ChemoProtocols">www.bccancer.bc.ca/ChemoProtocols</a> under the index page of each tumour site
Systemic Therapy Program Policies	<a href="http://www.bccancer.bc.ca/HPI/ChemotherapyProtocols/Policies">www.bccancer.bc.ca/HPI/ChemotherapyProtocols/Policies</a>
Unconventional Cancer Therapies Manual	under Patient/Public Info, Unconventional Therapies

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<b>IN TOUCH</b>	<a href="http://www.bccancer.bc.ca">www.bccancer.bc.ca</a>	<a href="mailto:bulletin@bccancer.bc.ca">bulletin@bccancer.bc.ca</a>
BC Cancer Agency .....	(604) 877-6000 .....	Toll-Free 1-(800) 663-3333
Communities Oncology Network.....	Ext 2744 .....	<a href="mailto:jvenkate@bccancer.bc.ca">jvenkate@bccancer.bc.ca</a>
Education Resource Nurse .....	Ext 2638 .....	<a href="mailto:nursinged@bccancer.bc.ca">nursinged@bccancer.bc.ca</a>
Nursing Professional Practice.....	Ext 2623 .....	<a href="mailto:ilundie@bccancer.bc.ca">ilundie@bccancer.bc.ca</a>
Pharmacy Professional Practice .....	Ext 2247 .....	<a href="mailto:gconcon@bccancer.bc.ca">gconcon@bccancer.bc.ca</a>
Provincial Systemic Therapy Program.....	Ext 2247 .....	<a href="mailto:gconcon@bccancer.bc.ca">gconcon@bccancer.bc.ca</a>
Communities Oncology Network Pharmacist.....	Ext 6277 .....	<a href="mailto:lkovacic@bccancer.bc.ca">lkovacic@bccancer.bc.ca</a>
Drug Information .....	Ext 6275 .....	<a href="mailto:druginfo@bccancer.bc.ca">druginfo@bccancer.bc.ca</a>
Library/Cancer Information .....	1-888-675-8001 .....	<a href="mailto:requests@bccancer.bc.ca">requests@bccancer.bc.ca</a>
	Ext 8003	
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	Fax (604) 708-2051	
Undesignated Drug Application office.....	Ext 6277 .....	<a href="mailto:undesignated@bccancer.bc.ca">undesignated@bccancer.bc.ca</a>
	Fax (604) 708-2026	
Update Editor.....	Ext 2288 .....	<a href="mailto:mdelemos@bccancer.bc.ca">mdelemos@bccancer.bc.ca</a>
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