



BC Cancer Agency

Systemic Therapy Update

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for health professionals who care for cancer patients
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FAX request form and IN TOUCH phone list are provided if additional information is needed.

EDITOR'S CHOICE

ADJUVANT OXALIPLATIN FOR COLON CANCER

The *Gastrointestinal Tumour Group* is introducing a new adjuvant regimen for node positive (stage III) *resected colon cancer* using the FOLFOX regimen of *5-fluorouracil* (5FU), *leucovorin* and *oxaliplatin* (UGIAJFFOX protocol). This protocol will be **effective 17 August** and will require **undesigned indication approval** prior to its use.

Traditionally, 5FU has been the mainstay of adjuvant therapy in this population. To date, the most commonly used regimen in Canada has been the so-called Mayo regimen of bolus 5FU and leucovorin (GIFFAD protocol). The FOLFOX regimen has been shown to offer an absolute increase in disease free survival of about 5-6 % in the randomised controlled MOSAIC trial as compared to an infusional 5FU regimen. (Andre T, et al. N Engl J Med 2004;350(23):2343-51)

UGIAJFFOX is likely to be of similar or less toxicity (e.g., stomatitis) than the GIFFAD regimen, with the exception for additional neurotoxicity and the potential of neutropenia. While the rate of Grade III neurotoxicity (affecting daily function) on the MOSAIC trial was approximately 12%, most resolved to Grade II or lower in the year following treatment.

Practitioners should note that there are differences in the dose of oxaliplatin and the recommended dose modifications between the familiar UGIFOLFOX regimen used in metastatic colorectal cancer and the new UGIAJFFOX used in the adjuvant setting. It is important that all health care professionals follow the recommended standard of practice and review the appropriate protocol at the time of prescribing, dispensing and administering oxaliplatin chemotherapy.

The adjuvant therapy section of the Cancer Management Guidelines will be updated shortly to reflect this change. For now, interested health care professionals may contact a GI Systemic Therapy Working Group member for clarification / discussion if required.

NEW AND REVISED PROTOCOLS

The *Genitourinary Tumour Group* has introduced several changes:

- Adjuvant protocol for *invasive urothelial carcinoma* using *cisplatin* and *gemcitabine* (UGUAJPG): the number and length of treatment cycles has been changed to 3-weekly for 6 cycles from the previous 4-weekly for 4 cycles.
- Palliative therapy for *metastatic prostate cancer* using *luteinizing hormone-releasing hormone (LHRH) agonists* (GUPLHRH): leuprolide SC injectable (Eligard) has been added as an option to the LHRH agonists.
- Treatment of *hormone refractory prostate cancer* using *mitomycin* (GUPM): this has been deleted. Currently, the standard treatments for this population include single agent docetaxel (GUPDOC) and mitoxantrone with prednisone (GUPMX).

BENEFIT DRUG LIST

The following has been added to the Benefit Drug List:

<i>Drug</i>	<i>Indication</i>	<i>Benefit status</i>
Leuprolide acetate SC injectable (Eligard®)	Therapy for prostate cancer using LHRH agonist (goserelin, leuprolide or buserelin) (GUPLHRH)	added as Class I

CANCER DRUG MANUAL

Several drug monographs and patient information handouts have been revised.

Cisplatin Monograph and Patient Information

These have been extensively updated.

BCG Monograph

This has been updated to include information related to the GUBCGIFN protocol. Ready-to-use interferon contains preservatives that may inactivate BCG; this drug interaction has been noted in this monograph. Intravesical administration and dosing information has been added to the monograph.

Capecitabine Monograph and Patient Information

These have been revised to include information about cardiotoxicity. Approximately 3% of patients treated with capecitabine experience cardiotoxicity which often appears 2-3 days after therapy is initiated. The spectrum of cardiotoxicity is similar to that reported with 5-fluorouracil (5-FU) and includes myocardial infarction, angina, cardiac failure and ECG changes. While the mechanism of capecitabine-related cardiotoxicity is not known, risk factors include a history of cardiotoxicity associated with 5-FU therapy and a prior history of coronary artery disease. Symptoms often resolve upon discontinuation of capecitabine.

Docetaxel Monograph

This has been revised to update stability information for the diluted solution for infusion. Docetaxel diluted in NS or D5W is stable for 4 hours at room temperature or refrigerated.

LHRH Agonists Patient Information

The patient handouts for *buserelin*, *goserelin* and *leuprolide* have been revised to delete the information on self-administration of the daily injectable, which is no longer commonly used for the treatment of cancer of the prostate and breast. Also, leuprolide acetate SC injectable (Eligard®) has been added to the leuprolide handout.

PATIENT EDUCATION

Patient Information Drug Handouts Several handouts have been revised. See under Cancer Drug Manual for more details.

PHARMACY SAFE HANDLING WORKING GROUP

In June 2003, the B.C. Cancer Agency Pharmacy Safe Handling Working Group (PSHWG) was formed with the intent of addressing Pharmacy issues in the safe handling of cytotoxic drugs. It was in the late 1970's that Finnish researchers first reported that nursing personnel preparing and administering chemotherapy had measurable mutagenic substances in their urine (1). It was believed that equipment and techniques used at that time could have been responsible for this exposure. As a result, the 1980's saw a practice change to centralize chemotherapy preparation in the pharmacy along with the development of safe handling guidelines using Biological Safety Cabinets (BSC) and personal protection equipment (PPE) to prevent potential exposure. Safe handling continues to be a concern in the 21st century, with reports of continued exposure of health care workers to cytotoxic drugs. An example of this is found in an article showing work surface contamination in 3 centers each in the USA and Canada (2).

The PSHWG is comprised of one pharmacist and one technician from each of the four BCCA regional cancer centres, in addition to a Professional Practice Leader. The group meets monthly, through video-link meetings. The key mandate of the PSHWG is *“To develop, implement, maintain and review evidence-based Pharmacy professional practice standards for safe handling of chemotherapy”* (3).

Projects that have been completed by the PSHWG include:

- Ensuring chemotherapy exposure records are used in all four regional cancer centre pharmacies
- Safe Handling Procedures Update presentation at the 2004 BCCA Annual Conference
- Consultation with Worker's Compensation Board (WCB) on the review of WCB requirements pertaining to cytotoxic drugs.

Ongoing projects of the PSHWG include:

- Development of a chemotherapy glove policy, that includes defining what gloves are acceptable to use when handling chemotherapy and guidelines on when to wear them i.e. receiving, handling, mixing, spills, decontamination.
- Spill kit contents and procedure for clean up
- Decontamination of Biological Safety Cabinet (BSC) procedure
- Development of a Hazardous drug list

This is a Pharmacy focused group. However, the PSHWG's mandate also includes support for other health care professionals regarding principles and practice of safe handling. Questions may be directed to any of the members listed below;

- Dianne Kapy. Pharmacy Professional Practice Leader, Fraser Valley Centre
- Joan Fabbro, Pharmacist, Fraser Valley Centre; PSHWG Chairperson
- Liz Cousineau. Pharmacy Technician, Fraser Valley Centre
- James Conklin, Pharmacist, Vancouver Centre
- Michelle Power, Pharmacy Technician, Vancouver Centre
- Rhonda Kalyn. Pharmacist, Centre for the Southern Interior
- Tracey Murelle, Pharmacy Technician, Centre for the Southern Interior
- Robin MacDonald, Pharmacy Technician, Vancouver Island Centre
- Nancy Coady, Pharmacist, Vancouver Island Centre

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References:

1. Falck K, Grohn P, Sorsa M et al. Mutagenicity in urine of nurses handling cytostatic drugs. Lancet. 1979; 1:1250-1. Letter.
2. Connor TH, Anderson RW, Sessink PJ et al. Surface Contamination with Antineoplastic Agents in Six Cancer Treatment Centres in Canada and the United States. Am J Health-Syst. Pharm 1999; 56:1427-32.
3. B.C. Cancer Agency Pharmacy Safe Handling Working Group Terms of Reference, April 2004.

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**.

New protocol:

- **UGIAJFFOX** new: Adjuvant therapy of colorectal cancer using oxaliplatin, 5-fluorouracil and folinic acid (leucovorin)

Revised protocols:

- **UGUAJPG** revised (*number and length of treatment cycle revised*): Adjuvant therapy for urothelial carcinoma using cisplatin and gemcitabine
- **GUPLHRH** revised (*leuprolide SC added*): Therapy for prostate cancer using LHRH agonist (goserelin, leuprolide or buserelin)
- **GUPM** deleted: Therapy for hormone-resistant metastatic carcinoma of the prostate using mitomycin monotherapy
- **LUMMPG** revised (*eligibility clarified*): Treatment of malignant mesothelioma with cisplatin and gemcitabine
- **LUMMPPEM** revised (*eligibility clarified*): Treatment of malignant mesothelioma with platinum and pemetrexed (ALIMTA®)
- **SCEPO** revised (*various minor revisions*): Guidelines for selecting and monitoring oncology patients for epoetin alfa (erythropoietin) therapy

LIST OF NEW AND REVISED PRE-PRINTED ORDERS

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

- **UGIAJFFOX** new: Adjuvant therapy of colorectal cancer using oxaliplatin, 5-fluorouracil and folinic acid (leucovorin)
- **GIAVCAP** revised (*Undesignated indication request needed after 6 cycles, not 8*): Palliative therapy of advanced colorectal cancer using capecitabine
- **UGICAPOX** revised (*Premedications section revised to include option to minimize neurotoxicity*): Palliative combination chemotherapy for metastatic colorectal cancer using oxaliplatin and capecitabine
- **GIEFUP** revised (*creatinine clearance parameter revised and mitomycin chemotherapy cycle options given*): Combined modality therapy for locally advanced esophageal cancer using 5-fluorouracil and cisplatin
- **UGIFOLFOX** revised (*premedications section revised to include option to minimize neurotoxicity*): Palliative combination chemotherapy for metastatic colorectal cancer using oxaliplatin, 5-fluorouracil and folinic acid (leucovorin)

- **GIFUC** revised (*creatinine clearance parameter added*): Palliative therapy for gastric cancer using fluorouracil and cisplatin (rounding off fluorouracil dose)
- **MOIT** new: Therapy for solid tumours using intrathecal methotrexate and/or thiotepa and/or cytarabine

CONTINUING EDUCATION – MARK YOUR CALENDAR

- **2-5 October 2005:** Annual Canadian Association of Nurses in Oncology Conference, Moncton, New Brunswick (www.cos.ca/cano) – registration now open
- **23-26 October 2005:** 1st International Cancer Control Congress, Pan Pacific Hotel, Vancouver, BC (www.cancercontrol.org)
- **28-30 October 2005:** National Oncology Pharmacy Symposium, Sheraton Wall Centre, Vancouver, BC (<http://capho.ca/>) – registration and poster submission now open
- **3-5 November 2005:** BCCA Annual Cancer Conference, Westin Bayshore 1601 Bayshore Drive, Vancouver, BC (www.bccancer.bc.ca/HPI/AnnualConference/default.htm) – registration and poster submission now open

WEBSITE RESOURCES

Reimbursement and Forms: The current Benefit Drug List, Class II forms and Undesignated Indication Application forms are available on the BC Cancer Agency website under Health Professionals Info, Chemotherapy Protocols, Frequently Used Forms (<http://www.bccancer.bc.ca/HPI/ChemotherapyProtocols/Forms.htm>).

Cancer Drug Manual is available on the BC Cancer Agency website www.bccancer.bc.ca/cdm/.

Cancer Management Guidelines are available on the BC Cancer Agency website (<http://www.bccancer.bc.ca/CaMgmtGuidelines/>) under Health Professionals Info, Cancer Management Guidelines.

The Cancer Chemotherapy Protocols are available on the BC Cancer Agency website (www.bccancer.bc.ca/ChemoProtocols) under Health Professionals Info, Chemotherapy Protocols.

The Cancer Chemotherapy Pre-Printed Orders are available on the BC Cancer Agency website (www.bccancer.bc.ca/ChemoProtocols) under Health Professionals Info, Chemotherapy Protocols. Pre-Printed Orders are posted at the index page of each tumour site.

Provincial Systemic Therapy Program Policies are available on the BC Cancer Agency website (www.bccancer.bc.ca) under Health Professionals Info, Chemotherapy Protocols, Policies and Procedures.

The Unconventional Cancer Therapies Manual is available on the BC Cancer Agency website www.bccancer.bc.ca under Patient/Public Info, Unconventional Therapies.

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