

Systemic Therapy Update



BC Cancer Agency

CARE + RESEARCH

An agency of the Provincial Health Services Authority

March 2010

Volume 13, Number 3

For health professionals who care for cancer patients
Available online at www.bccancer.bc.ca/HPI/ChemotherapyProtocols/stupdate

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EDITOR'S CHOICE:

FOCUS ON: LOW MOLECULAR WEIGHT HEPARIN FOR TREATMENT OF VENOUS THROMBOEMBOLISM (VTE) – PHARMACARE COVERAGE

Low molecular weight heparin (LMWH) is recommended by the ASCO Guidelines 2007 as the preferred agent for the initial and continuing treatment of established venous thromboembolism (VTE) in cancer patients.¹ In two randomised controlled studies (CLOT² and LITE³ trials), the incidence of recurrent VTE was significantly lower in patients treated with LMWH (7-9%) compared to warfarin (16-17%) after 6 months of therapy.

The BC Cancer Agency does not fund supportive medication such as LMWH. Pharmacare Special Authority approval should be requested using the SA Request Form for LMWH (www.health.gov.bc.ca/pharmacare/sa/criteria/formsindex.html) or, for an expedited review, by calling Pharmacare directly (1-877-657-1188). Note that the form does not include the continuing treatment of VTE as an approved indication. Therefore, it is important to clearly communicate the superiority of long-term LMWH over warfarin for cancer patients:

- increased efficacy and safety of LMWH
- fewer drug interactions with LMWH than with warfarin
- difficulty in monitoring INR with warfarin in cancer patients who generally have poor venous access or who have future plans for surgery which require temporary discontinuation of anticoagulation

Supporting evidence from the CLOT and LITE Trials plus the ASCO Guidelines is generally sufficient for a request to be approved for at least 3 months. Further requests, with sufficient rationale, may be needed to prolong the therapy to a total of at least 6 months.

Submitted by:

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References:

1. Lyman GH, Khorana AA, Falanga A, et al. American Society of Clinical Oncology Guideline: Recommendations for venous thromboembolism prophylaxis and treatment in patients with cancer. *J Clin Oncol* 2007;25:5490-505.
2. Lee AYY, Levine MN, Baker RI, et al for the CLOT Investigators. Low-molecular-weight heparin versus a coumarin for the prevention of recurrent venous thromboembolism in patients with cancer. *N Engl J Med*. 2003;349:146-53.
3. Hull RD, Pineo GF, Brant RF, et al for the LITE Trial Investigators. Long-term low-molecular-weight heparin versus usual care in proximal-vein thrombosis patients with cancer. *Am J Med*. 2006;119:1062-72.

DRUG UPDATE

Everolimus (AFINITOR®) is an oral signal transduction inhibitor targeting mTOR (mammalian target of rapamycin) similar to temsirolimus. It is approved by Health Canada for patients with metastatic renal cell carcinoma (RCC) of clear cell morphology, after failure of initial treatment with either sunitinib or sorafenib. Full prescribing information is available at: www.novartis.ca/products/en/pharmaceuticals-az.shtml.

Currently, the BC Cancer Agency has no funding for everolimus.

1. New patients: physician and patient should complete the enrollment and consent form for the AfiniTRAC Reimbursement Support Program (fax 1-866-359-0175). The program will coordinate coverage if patients have third party insurance or provide compassionate supply until coverage can be secured. The BCCA regional centre pharmacies are **not** involved in the dispensing of everolimus to these patients.
2. Patients already on everolimus: physician and patient should still register with the AfiniTRAC program even if patient has been provided with free drug via Health Canada's Special Access Programme. The BCCA regional centre pharmacies will carry on dispensing everolimus for these patients and work with the AfiniTRAC program to ensure they continue to receive everolimus at no cost to the BCCA.

For more information, contact AfiniTRAC program at tel: 1-888-623-4648.

CANCER DRUG MANUAL

Treosulfan Interim Monograph has been developed. Treosulfan is a new alkylating agent related to busulfan. It can only be accessed via Health Canada's Special Access Programme and requires approval by the BCCA Compassionate Access Program. Treosulfan has been used for treatment of ovarian cancer and as part of conditioning regimen of hematopoietic cell transplantation.

Exemestane Monograph has been updated to include administration instructions already found in the patient handout.

Methotrexate Monograph has undergone limited revision to include additional dosing information in renal dysfunction to reflect an alternate regimen based on creatinine clearance.

Rituximab Monograph has been revised with the removal of Y-site and additive compatibility information that is not commonly encountered with routine chemotherapy delivery. Readers are directed to consult more detailed reference text for such information.

Changes in Editorial Board The Cancer Drug Manual Team would like to welcome **Sarah Farnalls**, to the Editorial Board as a nurse representative. Sarah is a staff nurse with the BCCA – Vancouver Centre Ambulatory Care Chemotherapy Unit. She replaces **Ruth Page** (BCCA – Vancouver Centre) who stepped down from the board in February. The team would like to thank Ruth for her many contributions during her time on the Board.

HIGHLIGHTS OF CHANGES IN PROTOCOLS, PRE-PRINTED ORDERS AND PATIENT HANDOUTS

The **Gynecological Tumour Group** has revised several protocols using combination of carboplatin and paclitaxel. The highlights of the revisions include:

- More detailed eligibility criteria
- Simplification of requirements for laboratory tests at baseline, before treatment and between treatment cycles
- Updated dose modifications tables for paclitaxel

The **Breast Tumour Group** has revised the Adjuvant protocol with Docetaxel and Cyclophosphamide (**BRAJDC**) to specify that cyclophosphamide should be administered first to reduce hypersensitivity response to docetaxel. In a retrospective analysis of 133 patients who received adjuvant docetaxel-cyclophosphamide combination, severe allergic reactions were more common when docetaxel was administered before cyclophosphamide compare to cyclophosphamide being given first (10.7% [12/112] vs. 4.7% [1/12], $p = 0.002$).

MEDICATION MISADVENTURE

The Systemic Therapy Update provides readers with information on new protocols and preprinted orders as well as revisions to protocols and orders. The case below highlights the need for clinicians to be aware of these changes.

Case description

The protocol and preprinted orders for the GUBEP was revised effective February 1st to include prehydration of 1000 mL Normal Saline with 20 mEq potassium chloride and 2 g magnesium sulfate IV over 60 minutes, Days 1 – 5.

A patient was started on the GUBEP protocol to be given February 8 – 12th. The newly revised preprinted order was completed by the doctor. Both the pharmacy and chemotherapy treatment unit staff missed the prehydration orders on Day 1 and 2.

The error was discovered on Day 3 by the chemotherapy nurse completing her checks prior to administering the treatment. The patient then received the prehydration for the final 3 days of treatment. The patient did not suffer any serious sequelae.

LEARNING Moment:

This is a commonly used protocol for patients with germ cell cancers. Staff may be so familiar with the protocol they see what they ‘want’ to see. It is important to complete all the necessary steps during the clinical checking process and review the entire preprinted order verifying it with the most current protocol.

COMMUNITIES ONCOLOGY NETWORK – REMINDER TO FOR PHARMACY OSCAR BILLINGS

DEADLINE 2009/2010 OSCAR BILLINGS The 2009/10 fiscal year will end on **Wednesday March 31, 2010**. This brings with it tight deadlines which must be met for external reporting to the Ministry of Health and the Office of the Comptroller General. All claims for this fiscal year must be invoiced by 11:59 pm **April 11, 2010**. Any claims invoiced after that time will not be eligible for reimbursement. For more information, please contact oscar@bccancer.bc.ca

LIST OF NEW AND REVISED PROTOCOLS, PRE-PRINTED ORDERS AND PATIENT HANDOUTS

BC Cancer Agency Protocol Summaries, Provincial Pre-Printed Orders (PPPOs) and Patient Handouts are revised periodically. New and revised protocols, PPPOs and patient handouts for this month are listed below. Protocol codes for treatments requiring “Compassionate Access Program” (previously Undesignated Indication Request) approval are prefixed with the letter U.

NEW PROTOCOLS, PPPOs AND PATIENT HANDOUTS (AFFECTED DOCUMENTS ARE CHECKED):

CODE	Protocol	PPPO	Patient Handout	Protocol Title
GOOVCIS	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Therapy for Invasive Epithelial Ovarian Cancer Using Cisplatin
LUAVVIN	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Treatment of Advanced Non-Small Cell Lung Cancer (NSCLC) with Vinorelbine
LUMMPG	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Treatment of Malignant Mesothelioma with Cisplatin and Gemcitabine

REVISED PROTOCOLS, PPPOs AND PATIENT HANDOUTS (AFFECTED DOCUMENTS ARE CHECKED):

CODE	Protocol	PPPO	Patient Handout	Changes	Protocol Title
BRAJDC	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<i>Sequence of drug administration revised, new reference added</i>	Adjuvant Therapy for Breast Cancer Using Docetaxel and Cyclophosphamide
UBRAJDCT	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<i>Space added for carboplatin dose reduction</i>	Adjuvant Therapy for Breast Cancer Using Docetaxel, Carboplatin and Trastuzumab
BRAVTPC	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<i>Space added for carboplatin dose reduction</i>	Palliative Therapy for Metastatic Breast Cancer using Trastuzumab, Paclitaxel and Carboplatin as First-Line Treatment for Recurrent Breast Cancer
UCNTEMOZMD	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<i>Dose adjustment for Day 22 lab results clarified</i>	Therapy for Malignant Brain Tumours Using Metronomic Dosing of Temozolomide
GOCXCRT	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<i>Tumour markers clarified in Tests section</i>	Treatment of High Risk Squamous Carcinoma, Adenocarcinoma, or Adenosquamous Carcinoma of the Cervix with Concurrent Cisplatin and Radiation

CODE	Protocol	PPPO	Patient Handout	Changes	Protocol Title
GOENDCAT	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<i>Clarifications in Eligibility, Exclusions, Tests, Premedications, Treatment, Dose Modifications and Precautions</i>	Treatment of Primary Advanced or Recurrent Endometrial Cancer using Carboplatin and Docetaxel
GOOVCATM	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<i>Clarifications in Title, Eligibility, Exclusions, Tests, Premedications, Treatment, Dose Modifications and Precautions</i>	Primary Treatment of No Visible Residual (Moderate-High Risk) Invasive Epithelial Ovarian, Fallopian Tube and Primary Peritoneal Cancer Using Carboplatin and Paclitaxel
GOOVCATR	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<i>Clarifications in Title, Eligibility, Exclusions, Tests, Premedications, Treatment, Dose Modifications and Precautions</i>	Second Line Treatment of Invasive Epithelial Ovarian, Fallopian Tube or Peritoneal Cancer Relapsing after Primary Treatment Using Paclitaxel and Carboplatin
GOOVCATX	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<i>Clarifications in Title, Eligibility, Exclusions, Tests, Premedications, Treatment, Dose Modifications and Precautions</i>	Primary Treatment of Visible Residual (Extreme Risk) Invasive Epithelial Ovarian, Fallopian Tube or Peritoneal Cancer Using Carboplatin and Paclitaxel
GOOVLDOX	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<i>Premedications clarified</i>	Treatment of Relapsed/Progressing, Epithelial Ovarian, Primary Peritoneal Or Fallopian Tube Carcinoma Using Pegylated Liposomal Doxorubicin
UGOOVPLDC	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<i>Premedications clarified</i>	Second line treatment for Epithelial Ovarian Cancer Relapsing After Primary Treatment using Pegylated Liposomal Doxorubicin (PLD) and Carboplatin
GUBEP	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<i>Posthydration clarified</i>	Curative Therapy for Germ Cell Cancer using Bleomycin, Etoposide and Cisplatin
GUEP	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<i>Treatment title modified, pre/post cisplatin hydration added, electrolytes added prior to each treatment, filgrastim indications added under dose modifications</i>	Therapy for Nonseminoma Germ Cell Cancer using Etoposide-Cisplatin
LUPOE	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<i>Protocol code revised to LUSCPOE</i>	Palliative Therapy of Extensive Stage Small Cell Lung Cancer (SCLC) with Oral Etoposide
LUSCPOE	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<i>See LUPOE</i>	Palliative Therapy of Extensive Stage Small Cell Lung Cancer (SCLC) with Oral Etoposide

WEBSITE RESOURCES AND CONTACT INFORMATION

WEBSITE RESOURCES	www.bccancer.bc.ca
REIMBURSEMENT AND FORMS: BENEFIT DRUG LIST, CLASS II, BC CANCER AGENCY COMPASSIONATE ACCESS PROGRAM	www.bccancer.bc.ca/HPI/ChemotherapyProtocols/Forms
CANCER DRUG MANUAL	www.bccancer.bc.ca/cdm
CANCER MANAGEMENT GUIDELINES	www.bccancer.bc.ca/CaMgmtGuidelines
CANCER CHEMOTHERAPY PROTOCOLS, PRE-PRINTED ORDERS, PROTOCOL PATIENT HANDOUTS	www.bccancer.bc.ca/ChemoProtocols
SYSTEMIC THERAPY PROGRAM POLICIES	www.bccancer.bc.ca/HPI/ChemotherapyProtocols/Policies
SYSTEMIC THERAPY UPDATE	www.bccancer.bc.ca/HPI/ChemotherapyProtocols/stupdate

CONTACT INFORMATION	www.bccancer.bc.ca	bulletin@bccancer.bc.ca
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COMPASSIONATE ACCESS PROGRAM OFFICE	Ext 6277	cap_bcca@bccancer.bc.ca
DRUG INFORMATION	Fax (604) 708-2026 Ext 6275	druginfo@bccancer.bc.ca
EDUCATION RESOURCE NURSE	Ext 2638	nursinged@bccancer.bc.ca
NURSING PROFESSIONAL PRACTICE	Ext 2623	ilundie@bccancer.bc.ca
LIBRARY/CANCER INFORMATION.....	1-(888)-675-8001..... Ext 8003	requests@bccancer.bc.ca
OSCAR HELP DESK	1-(888)-355-0355..... Fax (604) 708-2051	oscar@bccancer.bc.ca
PHARMACY CHEMOTHERAPY CERTIFICATION	(250) 712-3900	rxchemocert@bccancer.bc.ca
PHARMACY PROFESSIONAL PRACTICE	Ext 686741 (250) 519.5574	jkippen@bccancer.bc.ca
ABBOTSFORD CENTRE (AC)	(604) 851-4710	Toll-free: 1-(877) 547-3777
CENTRE FOR THE SOUTHERN INTERIOR (CCSI)	(250) 712-3900	Toll-Free 1-(888) 563-7773
FRASER VALLEY CENTRE (FVCC)	(604) 930-2098	Toll-Free 1-(800) 523-2885
VANCOUVER CENTRE (VCC).....	(604) 877-6000	Toll-Free 1-(800) 663-3333
VANCOUVER ISLAND CENTRE (VICC)	(250) 519-5500	Toll-Free 1-(800) 670-3322

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