Systemic Therapy Update

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INSIDE THIS ISSUE



## EDITOR'S CHOICE:

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

The **Lymphoma and Myeloma Tumour Group** has introduced **bortezomib** in combination with **melphalan** and **prednisone** (UMYMPBOR) for the treatment of multiple myeloma in patients who are not eligible for stem cell transplantation. A phase III study has shown that addition of bortezomib to melphalan and prednisone can significantly delay the time to progression (24.0 vs. 16.6 months) and increase the overall survival at 3 years (72% vs. 59%).

The **Gynecology Tumour Group** has developed a new protocol using **docetaxel** and **gemcitabine** for advanced or recurrent uterine sarcoma (GOSADG). Data from two phase II studies suggest that this combination is associated with significantly longer overall survival (17.9 months) compared to gemcitabine alone (11.5 months).

The **Ocular Tumour Group** has formalised the use of topical **mitomycin** (OCMITO) and interferon alfa-2b (OCIFN) eye drops for ocular malignancies such as malignant melanoma of the conjunctiva and ocular surface squamous neoplasia (OSSN). Both eye drops can induce clinical resolutions of these lesions with minimal self-limited side effects.

The **Neuro-Oncology Tumour Group** has added quinagolide as an alternative second line suppressive agent to cabergoline for patients with pituitary adenomas or prolactinomas after failure or intolerance to bromocriptine (CNQUIN). Quinagolide is also the preferred agent over cabergoline for patients who present with a macroadenoma and mass symptoms.

## BENEFIT DRUG LIST

The following programs have been added on the benefit list effective 1 December 2009:

- **Aldesleukin** (class II) for pediatric patients with high risk neuroblastoma treated on the ANBL0032 study
- **Bortezomib** (case-by-case) in combination with **Melphalan** (class I) and **Prednisone** (class I) for previously untreated multiple myeloma patients who are unsuitable for stem cell transplantation (UMYMPBOR)
- **Docetaxel** (class II) in combination with **Gemcitabine** (class II) for advanced or recurrent uterine sarcoma cancer (GOSADG)
- **Interferon Alfa-2b** (class I) eye drops as topical therapy for ocular malignancies (OCIFN)
- **Mitomcyin** (class I) eye drops as topical therapy for ocular malignancies (OCMITO)
- **Quinagolide** (class I) as second line suppressive therapy for prolactinomas (CNQUIN)

## DRUG UPDATE: ACCESS TO AZACITIDINE

Azacitidine (VIDAZA®) injection has recently been approved by Health Canada for patients ineligible for stem cell transplant who have:

- intermediate-2 and high-risk myelodysplastic syndrome (MDS)
- acute myeloid leukemia (AML) with 20-30 % blasts and multi-lineage dysplasia.

Azacitidine is a pyridimine analogue with multiple antineoplastic effects, including cytotoxicity on abnormal hematopoietic cells in the bone marrow and hypomethylation of DNA.

Currently, azacitidine is only available through Health Canada's Special Access Program (SAP). Until it becomes commercially available, Celgene will provide it at no charge for patients already receiving the drug via the SAP and for new patients needing azacitidine for Health Canada's approved indications. Celgene has indicated that commercial supply of azacitidine is anticipated to be available mid-January 2010.

Given the budget restraint in this fiscal year, it is important for everyone to be aware of the access issues for azacitidine.

- The BC Cancer Agency Provincial Systemic Therapy Program is not currently funding azacitidine. Compassionate Access Program (CAP) approvals are being given on the condition that there is no cost to the BCCA for the drug. BCCA Regional Pharmacies will dispense free-drug supply to patients who have been approved through Celgene's free-drug program.
- Once azacitidine is commercially available, patients on the free-drug program will need to pay for the drug with their own private insurance. If patients have reached the maximum lifetime limits on their insurance while on azacitidine, they may not be able to access the free drug supply again from Celgene for the rest of their azacitidine treatment.
- For patients on the free-drug program but without private insurance, Celgene may continue to provide free-drug access but this has not been confirmed yet.

For more information on the free-drug program, please contact Celgene Medical Information at 1-888-712-2353 ext 4850.

**Lapatinib Monograph** and **Patient Handout** have been developed. Expert review was provided by Dr. Caroline Lohrisch and pharmacist Kimberly Kuik (Breast Tumour Group). Lapatinib is an oral tyrosine kinase inhibitor of both EGFR and HER2 receptors. The following are highlights from the two new documents:

- The predominant toxicities with monotherapy in clinical trials included diarrhea, rash, nausea, vomiting, anorexia, and fatigue.
- Concurrent medications should be carefully reviewed for potential interactions. Lapatinib is extensively metabolized in the liver, mainly by CYP 3A4 and CYP 3A5. It is a substrate and an inhibitor of CYP 3A4, an inhibitor of CYP 2C8, a substrate and an inhibitor of P-glycoprotein and BCRP, as well as an inhibitor of OATP1B1.
- Lapatinib has been associated with concentration-dependent QT interval prolongation, and concurrent therapy with other QT interval prolonging drugs should be avoided when possible.
- Absorption is significantly but variably increased in the presence of food, especially in the presence of fat. Therefore, it is recommended that lapatinib be taken only on an empty stomach, at least one hour before or one hour after meals.

Lapatinib is indicated in combination with capecitabine for the treatment of patients with advanced breast cancer whose tumours overexpress HER-2. Patients must have received prior taxanes, anthracyclines and tratuzumab. Note that lapatinib is not currently funded by the BC Cancer Agency. For more details on how the access to and reimbursement of lapatinib , see the July 2009 issue of the Systemic Therapy Update (www.bccancer.bc.ca/HPI/ChemotherapyProtocols/stupdate)

**Aprepitant Patient Handout** has been updated to clarify the dosing time. Previously, the handout suggests taking aprepitant "up to one hour" prior to chemotherapy, in accordance to the EMEND® product monograph. This could be problematic due to the timing of patients' arrival at the clinic and the decision to proceed with chemotherapy. The new dosing time is based on the actual range of dosing time (30-90 minutes) reported in the pivotal trials of aprepitant.

**Docetaxel Monograph** has been updated to include prostate cancer as a primary use, together with breast and non-small cell lung cancers. Some details have been removed from the Solution Preparation and Compatibility section as they are now to be found in the BCCA Chemotherapy Preparation and Stability Chart. Formatting of the side effect table was also updated to conform to the current CDM standards.

**The Cancer Drug Manual Team** would like to welcome **Kimberly Charles** to the Editorial Board as a nurse representative. Kim is the regional oncology clinical educator for Regional Cancer Care at Prince George Regional Hospital, and has previously practised as an oncology nurse at the Centre of the Southern Interior–BCCA. She replaces **Calay Drader** (Vancouver Island Centre– BCCA) who stepped down from the Board last month. The Team would like to thank Calay for all her contributions during her time on the Board.

The Cancer Drug Manual Team is also pleased to announce the appointment of **Nadine Badry**, Pharmacist (Vancouver Island Centre–BCCA) as the manual's new acting editor. Nadine has been a writer for the manual over the past year and she replaces James Conklin who returns to the Vancouver Centre–BCCA, having completed his 18-month part time secondment to the Cancer Drug Manual Team.

The CDM Team extends a heartfelt thank you to all **CDM Editorial Review Board members** for their hard work over the past year:

Clarissa Cheng
Jeff Davis
Roberta Esau
Calay Drader
Karen Janes
Roxana Ho
Ruth Page
Sanna Pellatt
Sheila Souliere
Sophie Sun
Judy Sutherland
Anna Tinker

## 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 |
|---|---|---|---|---|
| **CNQUIN** | ☑ | ☑ | ☐ | Second Line Suppressive Therapy for Prolactinomas using Quinagolide |
| **GOSADG** | ☑ | ☑ | ☐ | Treatment of Uterine Sarcoma Cancer Using Docetaxel and Gemcitabine |
| **HNLAPRT** | ☐ | ☑ | ☑ | Combined Chemotherapy Cisplatin and Radiation Treatment for Locally Advanced Squamous Cell Carcinoma of the Head and Neck |
| **UMYMPBOR** | ☑ | ☐ | ☐ | Treatment of Multiple Myeloma using Melphalan, Prednisone and Weekly Bortezomib |
| **OCIFN** | ☑ | ☐ | ☐ | Topical Therapy for Ocular Malignancies Using Interferon Alfa-2B Eye Drops |
| **OCMITO** | ☑ | ☐ | ☐ | Topical Therapy for Ocular Malignancies Using Mitomycin Eye Drops |

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

| CODE | Protocol | PPPO | Patient Handout | Changes | Protocol Title |
|---|---|---|---|---|---|
| **CNB** | ☐ | ☑ | ☐ | *Reformatted* | Therapy for Prolactinomas using Bromocriptine |
| **CNCAB** | ☐ | ☑ | ☐ | *Reformatted* | Second Line Suppressive Therapy for Prolactinomas using Cabergoline |
| **GIAVFL** | ☐ | ☑ | ☐ | *Tests and Chemotherapy sections clarified* | Palliative Combination Chemotherapy for Metastatic Colorectal Cancer Using 5-Fluorouracil Injection and Infusion and Folinic Acid (Leucovorin) Infusion |

| CODE | Protocol | PPPO | Patient Handout | Changes | Protocol Title |
|---|---|---|---|---|---|
| **UGIFFIRB** | ☐ | ☑ | ☐ | *Chemotherapy section clarified* | Palliative Combination Chemotherapy for Metastatic Colorectal Cancer Using Irinotecan, Fluorouracil, Folinic Acid (Leucovorin) and Bevacizumab |
| **UGIFFOXB** | ☐ | ☑ | ☐ | *Chemotherapy section clarified* | Palliative Combination Chemotherapy for Metastatic Colorectal Cancer Using Oxaliplatin, 5-Fluorouracil, Folinic Acid (Leucovorin) and Bevacizumab |
| **GIFOLFIRI** | ☐ | ☑ | ☐ | *Chemotherapy section clarified* | Palliative Combination Chemotherapy for Metastatic Colorectal Cancer Using Irinotecan, Fluorouracil and Folinic Acid (Leucovorin) |
| **UGIFOLFOX** | ☐ | ☑ | ☐ | *Chemotherapy section clarified* | Palliative Combination Chemotherapy for Metastatic Colorectal Cancer Using Oxaliplatin, 5-Fluorouracil and Folinic Acid (Leucovorin) |
| **GIPGEM** | ☐ | ☑ | ☐ | *Dose modifications and Return appointment sections clarified* | Palliative Therapy for Pancreatic Adenocarcinoma, Gallbladder Cancer, and Cholangiocarcinoma Using Gemcitabine |
| **GOOVLDOX** | ☑ | ☐ | ☐ | *Minor typo corrected in Eligibility* | Treatment of Relapsed/Progressing Epithelial Ovarian, Primary Peritoneal, or Fallopian Tube Carcinoma Using Pegylated Liposomal Doxorubicin |
| **GUPKETO** | ☑ | ☐ | ☐ | *Reformatted* | High-Dose Ketoconazole Therapy for the Short Term Hormonal Management for Metastatic Prostate Cancer |
| **HNLAPRT** | ☑ | ☐ | ☐ | *Dose reduction for renal function clarified* | Combined Chemotherapy Cisplatin and Radiation Treatment for Locally Advanced Squamous Cell Carcinoma of the Head and Neck |
| **ULKMDSL** | ☐ | ☑ | ☐ | *Tests and amount of lenalidomide supply clarified* | Therapy of Myelodysplastic Syndrome using Lenalidomide |
| **LUAVNP** | ☑ | ☐ | ☐ | *Reformatted* | Treatment for Advanced Non-Small Cell Lung Cancer (NSCLC) with Cisplatin and Vinorelbine |
| **ULYMFBEX** | ☐ | ☑ | ☐ | *Treatment and lab tests sections clarified* | Treatment for Refractory Cutaneous T-Cell Lymphoma using Bexarotene |
| **MYHDC** | ☑ | ☐ | ☐ | *Reformatted* | Single Dose Cyclophosphamide Priming Therapy for Multiple Myeloma Prior to Autologous Stem Cell Transplant (Leukemia/BMT Program of BC- BCCA) |
| **SCMESNA** | ☑ | ☐ | ☐ | *Reformatted* | MESNA Dosage Modification for Hematuria Secondary to Oxazaphosphorines (e.g. Ifosfamide and Cyclophosphamide) |

## 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 |
|---|---|---|
| BC CANCER AGENCY | (604) 877-6000 | Toll-Free 1-(800) 663-3333 |
| PROVINCIAL SYSTEMIC THERAPY PROGRAM | Ext 2247 | mlin@bccancer.bc.ca |
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| COMMUNITIES ONCOLOGY NETWORK PHARMACY EDUCATORS | | www.bccancer.bc.ca/RS/CommunitiesOncologyNetwork/Educators/Pharmacists/ |
| COMPASSIONATE ACCESS PROGRAM OFFICE | Ext 6277<br>Fax (604) 708-2026 | cap_bcca@bccancer.bc.ca |
| DRUG INFORMATION | 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<br>Ext 8003 | requests@bccancer.bc.ca |
| OSCAR HELP DESK | 1-(888)-355-0355<br>Fax (604) 708-2051 | oscar@bccancer.bc.ca |
| PHARMACY PROFESSIONAL PRACTICE | (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 |