BC Cancer Agency

Systemic Therapy Update

Volume 10, Number 7 *for health professionals who care for cancer patients* July 2007
Website access at http://www.bccancer.bc.ca/HPI/ChemotherapyProtocols/stupdate.htm

INSIDE THIS ISSUE

EDITOR'S CHOICE

2007/08 NEW TREATMENT POLICY ANNOUNCEMENTS

The Provincial Systemic Therapy Program of the BC Cancer Agency is pleased to announce the funding of a number of new treatment programs for fiscal year 2007/08. These programs will be implemented following the development of the relevant treatment protocols, patient education materials and pre-printed orders. Implementation of the new programs will be announced in the Systemic Therapy Update. The relevant supporting documentation will be made available on the BC Cancer Agency web site (www.bccancer.bc.ca). Funding decisions on other new treatment programs are in progress and will be announced in future issues of the Systemic Therapy Update.

Curative/Adjuvant Protocols

Tumour Group	Program	Special Application Process	Projected implementation date
Breast	Adjuvant **trastuzumab** therapy with docetaxel followed by FEC (FinHer regimen) for breast cancer (BRAJTDFEC)	**trastuzumab (class II)**	implemented (January 2007)
Gastrointestinal	**Epirubicin-cisplatin** with either **fluorouracil (ECF)** or **capecitabine (ECC)** as perioperative chemotherapy for gastric cancer	**capecitabine (class II)**	September 2007

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Chronic Disease Protocols

Tumour Group	Program	Special Application Process	Projected implementation date
Genitourinary	**Sunitinib** for patients with metastatic renal cell carcinoma (clear cell type) after failure of interferon or if unsuitable for interferon (UGUSUNI) – also see **Revised Treatment Policy in Metastatic Renal Cell Carcinoma** in this issue	**case-by-case approval**	July 2007
Genitourinary	**Sorafenib** for patients with metastatic renal cell carcinoma (clear cell type) after failure of interferon – also see **Revised Treatment Policy in Metastatic Renal Cell Carcinoma** in this issue	**case-by-case approval**	July 2007
Sarcoma	**Sunitinib** as second line treatment of metastatic gastrointestinal stromal tumour after failure or intolerance of imatinib	**case-by-case approval**	August 2007
Gynecological	**Pegylated liposomal doxorubicin (CAELYX®)** for relapsed/progressive ovarian, fallopian tube or primary peritoneal cancer (GOOVLDOX)	**class II**	July 2007

REVISED TREATMENT POLICY FOR COLORECTAL CANCER

Effective immediately, the **Gastrointestinal Tumour Group** has revised a number of treatment protocols and provincial pre-printed orders (PPPOs):

1. The recommended first line therapy for metastatic colorectal cancer for patients suitable for combination chemotherapy is **FOLFIRI** (GIFOLFIRI). This is a class II indication. Indications for considering first line FOLFOX therapy as a substitute for FOLFIRI are:
    a. Gilbert's Syndrome
    b. Peri-operative FOLFOX for patients with resectable/potentially resectable liver metastasis
    c. Other concern regarding potential toxicity of irinotecan, to be specified by the treating oncologist.

This use of FOLFOX requires approval via the BCCA Compassionate Access Program (CAP)/Undesignated Indication Request.

2. **FOLFOX** is available as second line therapy for metastatic colorectal cancer. All oxaliplatin based therapy (adjuvant [UGIAJFFOX]) OR metastatic [UGIFOLFOX]) remains subject to CAP/Undesignated Indication approval.
3. For patients deemed suitable for **bevacizumab** based therapy, bevacizumab may be added to FIRST LINE THERAPY ONLY for a maximum of 12 CYCLES in combination with FOLFIRI (UGIFFIRB). All bevacizumab based therapy remains subject to CAP/Undesignated Indication approval. FOLFOX may be considered in place of FOLFIRI for the above exceptions only (UGIFFOXB). Oncologists wishing to avoid the use of bevacizumab with pre-operative therapy may apply for bevacizumab therapy in combination with post-operative or second line therapy for those patients who proceed with resection of metastatic disease.
4. Due to early reports concerning a potentially reduced efficacy of oxaliplatin based therapy when used in conjunction with **intravenous calcium and magnesium** administered for neurotoxicity prophylaxis, such therapy will be removed from all oxaliplatin protocols and PPPOs until more mature data are forthcoming (also see under Drug Update in this issue).
5. **Capecitabine** (GIAVCAP) remains an option for first line use in patients unsuitable for combination chemotherapy. This remains a class II indication. Capecitabine as a substitute for infusional fluorouracil/leucovorin in the combination oxaliplatin and irinotecan +/- bevacizumab regimens remains subject to CAP/Undesignated Indication approval (UGICAPIRI, UGICIRB).

REVISED TREATMENT POLICY FOR METASTATIC RENAL CELL CARCINOMA (RCC)

The **Genitourinary Tumour Group** has introduced the funded treatment programs of **Sunitinib** (SUTENT®) and **sorafenib** (NEXAVAR®) for patients with metastatic RCC. Patients must have a clear cell histology or clear cell component. Histology should be obtained whenever possible. In the rare case where obtaining histology is impossible, funding will be considered on a case-by-case basis.

Sunitinib is considered the reference standard for first line treatment of patients with advanced RCC, who are not suitable candidates for interferon. *Sorafenib* can be considered for patients after cytokine failure. Sunitinib represents an alternative to sorafenib in this indication. There will be NO funding for the sequential use of sunitinib and sorafenib in patients progressing on one of the drugs. In selected cases, patients may be allowed to switch between tyrosine kinase inhibitors if treatment has to be stopped for severe toxicity within the first 8 weeks of treatment. Sunitinib and sorafenib will only be available through the BCCA Compassionate Access Program (CAP)/ Undesignated Indication Request. Every application will be reviewed for indication. There is currently no approved therapy after sunitinib or sorafenib failure. Considering patients for clinical trials is strongly recommended (please contact Dr. Christian Kollmannsberger or Dr. Kim Chi, Vancouver Centre – BC Cancer Agency).

Interferon should only be considered in highly selected patients as per revised guidelines, such as young patients with clear cell histology, good performance status, a progression-free interval following initial diagnosis of more than 1 year and preferably lung metastases as the sole metastatic site.

Temsirolimus is available through Health Canada's Special Access Program (SAP), in which the drug is provided free of charge. It requires an application to Wyeth, the manufacturer, and Health Canada for each patient. Temsirolimus within the SAP is the preferred treatment for all patients with poor prognosis criteria and should be strongly considered for these patients. Applications for sunitinib for poor prognosis patients will only be considered if patients do not qualify for temsirolimus through the SAP. Temsirolimus is also the preferred treatment for patients with non-clear cell histology (*Dutcher et al: ASCO 2007 abstract 5033*).

References

1. Escudier B, Eisen T, Stadler W, et al. Sorafenib in advanced clear-cell renal-cell carcinoma. N Engl J Med 2007;356:125-34.
2. Motzer R, Rini B, Buzkowski R, et al. Sunitinib in patients with metastatic renal cell carcinoma. JAMA 2006;295:2516-24.
3. Motzer R, Michelson D, Redman B, et al. Activity of SU11248, a multitargeted inhibitor of vascular endothelial growth factor receptor and platelet-derived growth factor receptor, in patients with metastatic renal cell carcinoma. J Clin Oncol 2006;24:16-24.
4. Motzer R, Hutson T, Tomczak P, et al. Sunitinib versus interferon alfa in metastatic renal-cell carcinoma. N Engl J Med 2007;356:115-24.

5. Hudes G, Carducci M, Tomczak P, et al. Temsirolimus, interferon alfa, or both for advanced renal-cell carcinoma. N Engl J Med 2007;356:2271-81.
6. Dutcher J, Szczylik C, Tannir N, et al. Correlation of survival with tumor histology, age, and prognostic risk group for previously untreated patients with advanced renal cell carcinoma (adv RCC) receiving temsirolimus (TEMSR) or interferon-alpha (IFN). Proc Am Soc Clin Oncol 2007:25(18S part I of II):243s (abstr 5033).

CHANGE IN AVAILABILITY OF BRAJACT FOR HER2 NEGATIVE EARLY BREAST CANCER

The Breast Systemic Therapy Group is withdrawing the **BRAJACT** protocol (3-weekly doxorubicin with cyclophosphamide x 4 followed by paclitaxel x 4 [4AC-4T]) as a standard adjuvant breast cancer treatment option in the **HER2 negative** population, based on mounting evidence (see below) that has reported superior regimens and AC-T delivery schedule. Alternatives include the currently available BRAJACTG (2-weekly dosing of AC-T with filgrastim [G-CSF] support). A weekly paclitaxel regimen could be considered if patients cannot afford or tolerate filgrastim in the BRAJACTG regimen; 3-weekly dosing of AC for 4 cycles would be followed by weekly paclitaxel for 12 cycles. Note that weekly paclitaxel requires approval via the BCCA Compassionate Access Program (CAP)/Undesignated Indication Request; a protocol and pre-printed orders are not at this time available but may be developed soon if there is sufficient need. As before, BRAJFEC and BRAJCEF are also options, and for node positive patients, BRAJFECD or BRAJTAC, if deemed appropriate.

Comparative Data on 3-Weekly Dosing AC-T

The CALGB 9741 study compared standard 3-weekly 4AC-4T to a 2-weekly schedule with filgrastim support ("dose dense"). There was a 7% absolute difference in recurrence at 4 years favouring the 2-weekly schedule (BRAJACTG).[1] In addition, data from the NCIC MA21 study showed that standard 3-weekly 4AC-4T was inferior in terms of relapse free survival to CEF (absolute difference 5%) and dose dense/dose intense 6EC (epirubicin/cyclophosphamide)-4T (absolute difference 4%) regimens.[2,3] Finally, in the E1199 trial, presented at the 2007 ASCO meeting, standard 3-weekly 4AC-4T was inferior to 4AC followed by 12 cycles of weekly paclitaxel 80 mg/m^2, with a hazard ratio of 1.32 for overall survival and 1.27 for disease free survival.[4]

For the **HER2 positive** breast cancer population who will be receiving trastuzumab, no change is proposed for the regimen BRAJACTT. There has been no direct comparison of 3-weekly vs. weekly paclitaxel.

- NSABP B31 and Intergroup trials: paclitaxel and trastuzumab were given weekly.
- HERA trial: 4AC-4T was one of several chemotherapy options, and only 20% of the study population received a taxane. Trastuzumab was given 3-weekly after completion of all chemotherapy.
- BCIRG study: docetaxel (not paclitaxel) was given after 4AC.

The decrease in relapse with the addition of trastuzumab may be sufficiently great that it washes out the benefit associated with giving weekly rather than 3-weekly paclitaxel. For reasons of dosing convenience and lack of data, the dose dense regimen (BRAJACTG) is not recommended when trastuzumab is given.

References

1. Citron ML, Berry DA, Cirrincione C, et al. Randomized trial of dose-dense versus conventionally scheduled and sequential versus concurrent combination chemotherapy as postoperative adjuvant treatment of node-positive primary breast cancer: first report of Intergroup Trial C9741/Cancer and Leukemia Group B Trial 9741. Journal of clinical oncology 2003;21(8):1431-9.
2. Burnell M, Levin M, Chapman JA, et al. A randomized trial of CEF versus dose dense EC followed by paclitaxel versus AC followed by paclitaxel in women with node positive or high risk node negative breast cancer, NCIC CTG MA.21: results of an interim analysis. (late breaking abstract 53). San Antonio Breast Cancer Symposium 2006. Available at: http://www.abstracts2view.com/sabcs06/view.php?nu=SABCS06L_1217. Accessed 25 June 2007.
3. Burnell MJI, Levine MN, Chapman JA, et al. A phase III adjuvant trial of sequenced EC + filgrastim + epoetin-alpha followed by paclitaxel compared to sequenced AC followed by paclitaxel compared to CEF in women with node-positive or high-risk node-negative breast cancer (NCIC CTG MA.21). J Clin Oncol (Meeting Abstracts) 2007;25(18_suppl):550-.
4. Loesch DM, Greco F, O'Shaughnessy J, et al. A randomized, multicenter phase III trial comparing doxorubicin + cyclophosphamide followed by paclitaxel or doxorubicin + paclitaxel followed by weekly paclitaxel as adjuvant therapy for high-risk breast cancer. J Clin Oncol (Meeting Abstracts) 2007;25(18_suppl):517-.

RITUXIMAB FOR PRIMARY CENTRAL NERVOUS SYSTEM LYMPHOMA (PCNSL)

The Lymphoma Tumour Group has introduced the use of rituximab with standard chemotherapy for primary CNS lymphoma (PCNSL) of diffuse large B cell histology (LYHDMRP). The new regimen consists of high-dose methotrexate with co-administration of rituximab 375 mg/m^2 every 2 weeks for four doses.

Rituximab, an anti-CD20 monoclonal antibody, has been shown to improve survival in diffuse large B cell lymphoma.[1] As a large molecule, rituximab does not readily cross the intact blood brain barrier. However, low concentrations of the drug can be found in the CSF of patients with disrupted brain vasculature due to tumour.[2] Several phase II studies have shown that it is safe and feasible to combine rituximab with methotrexate for primary treatment of PCNSL.[3,4] This addition of rituximab brings the treatment of PCNSL in line with the standard approach of adding rituximab to primary chemotherapy for diffuse large B-cell lymphoma, an approach that has proven highly effective for systemic presentation of this lymphoma.[5]

References
1. Coiffier B, Lepage E, Briere J, et al. CHOP chemotherapy plus rituximab compared with CHOP alone in elderly patients with diffuse large-B-cell lymphoma. N Engl J Med 2002;346(4):235-42.
2. Rubenstein JL, Combs D, Rosenberg J, et al. Rituximab therapy for CNS lymphomas: targeting the leptomeningeal compartment. Blood 2003;101(2):466-8.
3. El Kamar FG, Deangelis LM, Yahalom J, et al. Combined immunochemotherapy with reduced dose whole brain radiotherapy (WBRT) for newly diagnosed patients with primary CNS lymphoma (PCNSL). J Clin Oncol (Meeting Abstracts) 2004;22(14_suppl):1518-.
4. Issa S, Hwang J, Karch J, et al. Treatment of primary CNS lymphoma with induction high-dose methotrexate, temozolomide, rituximab followed by consolidation cytarabine/etoposide: A pilot study with biomarker analysis. J Clin Oncol (Meeting Abstracts) 2006;24(18_suppl):7595-.
5. Sehn LH, Donaldson J, Chhanabhai M, et al. Introduction of combined CHOP plus rituximab therapy dramatically improved outcome of diffuse large B-cell lymphoma in British Columbia. J Clin Oncol 2005;23(22):5027-33.

CANCER DRUG MANUAL

Buserelin, Goserelin, Leuprolide Monographs and Handouts have been completely revised. Expert review was provided by Drs. Susan Ellard (Breast Tumour Group) and Tom Pickles (Genitourinary Tumour Group). Highlighted changes include:

- addition of bone mineral density paragraph
- addition of information on drug-induced disease flare in women
- information about continued menstrual flow at the beginning of therapy
- removal of buserelin nasal formulation (no longer available)

Chemotherapy Preparation and Stability Chart has been revised with new reconstitution information for cyclophosphamide (CYTOXAN®, Bristol-Myers Squibb).

Supportive Care Handouts In many of our patient handouts, readers will notice references to handouts that are not drug-specific, and not produced by the Cancer Drug Manual team; e.g., *Help with Diarrhea during Chemotherapy*. If patients ask you for these handouts, do you know where to find them?

- Staff at regional centres can access the following handouts at H:\EVERYONE\Patient Education\Nutrition:
  - *Food Choices to Help Control Nausea*
  - *Help with Diarrhea During Chemotherapy*
  - *Suggestions for Dealing with Constipation*
  - *Food Ideas for a Sore Mouth during Chemotherapy*
  - *Food Ideas to Cope with Taste and Smell Changes*
  - *Food Ideas to Help with Decreased Appetite*
  - *Patient Guidelines for the Prevention of Osteoporosis in Women*
  - *Guidelines for the Prevention of Osteoporosis for Men with Prostate Cancer on Hormone Therapy*
- All regional cancer centre libraries can help individuals obtain copies of:
  - *Your Bank to Energy Savings: How People with Cancer Can Handle Fatigue*
- Staff at CON sites should be aware that some handouts are available at www.bccancer.bc.ca/PPI/copingwithcancer. As we work toward making all handouts available on-line, please contact BCCA Library if you need help locating a supply of a particular handout.

DRUG UPDATE

Oxaliplatin There have been two major changes to the use of this agent for colorectal cancer:

1. Health Canada has recently approved oxaliplatin (ELOXATIN®) for the treatment of metastatic colorectal cancer. Therefore, Health Canada's Special Access Programme application is no longer required for the use of the FOLFOX regimen. Oxaliplatin has been added to the BCCA Benefit Drug List and its use remains subject to CAP/Undesignated Indication approval (more details under Revised Treatment Policy for Colorectal Cancer in this issue).
2. Calcium/magnesium (Ca/Mg) infusions are currently NOT advised for neurotoxicity prophylaxis of oxaliplatin until more mature data are available. All oxaliplatin based protocols and PPPOs have been revised with the deletion of calcium/magnesium premedication.

   Sanofi-aventis in the US has reported an unplanned interim analysis of data from a Phase IV study by the Data Monitoring Committee. This indicated that Ca/Mg infusions, administered to reduce or prevent oxaliplatin-associated neurological adverse events, may be associated with a reduced response rate to FOLFOX/Bevacizumab treatment in the pooled population of patients receiving either the conventional or the intermittent scheduled of oxaliplatin. Sanofi-aventis closed the study and intends to promptly collect and analyse the study data and to present the findings when the analysis is complete.

Temsirolimus (TORISEL®) has recently been approved by the US Food and Drug Administration for advanced renal cell carcinoma (RCC). In a phase III open-label study of previously untreated patients with advanced RCC, temsirolimus compared to interferon was associated with a statistically significant increase in overall survival (10.9 vs. 7.3 months, hazard ratio [HR] 0.73) and progression-free survival (5.5 vs. 3.1 months, HR 0.66). The most common severe side effects were:

- clinical symptoms: asthenia, dyspnea, rash, pain
- laboratory changes: hypertriglyceridemia, anemia, hypophosphatemia, hyperglycemia, lymphopenia, and neutropenia.

For more details, see the Revised Treatment Policy for Metastatic Renal Cell Carcinoma in this issue and Drugs with Special Ordering Procedures on our website (www.bccancer.bc.ca/HPI/ChemotherapyProtocols/Forms).

COMMUNITIES ONCOLOGY NETWORK: "PHARMACY GUIDE TO BCCA CHEMOTHERAPY PROTOCOLS" NOW AVAILABLE ON-LINE

Part I of the "*Pharmacy Guide to BC Cancer Agency Chemotherapy Protocols: The Clinical Interpretation and Application of Treatment Protocol Summaries*" is now available in PDF format on the BCCA website at http://www.bccancer.bc.ca/RS/CommunitiesOncologyNetwork/Educators/Pharmacists/guide.htm.

The hard copy of the Guide was developed, published and distributed by the BCCA Pharmacy CON Educators in 2003. It has been well received by all who have used it, but is now out of print. The on-line version has been revised and updated to reflect changes in practise since 2003 and will now be the only available version. Parts 2 (Example Case Studies) and 3 (Self-Assessment) will be available on-line later this year.

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

The **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" approval are prefixed with the letter **U**.

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

CODE	Protocol	PPPO	Patient Handout	Protocol Title
GOOVLDOX	☑	☑	☐	Treatment of Relapsed/Progressing Epithelial Ovarian, Primary Peritoneal, or Fallopian Tube Carcinoma, Using Pegylated Liposomal Doxorubicin
GUBRADC	☑	☑	☐	Treatment of Locally Advanced Bladder Cancer Using Concurrent Cisplatin with Radiation
UGUSUNI	☑	☑	☐	Palliative Therapy for Renal Cell Carcinoma Using Sunitinib (SUTENT®)
UGUTEM	☑	☑	☐	Therapy for Advanced Renal Cancer Using Temsirolimus
KSAD	☐	☑	☐	Therapy for Kaposi's sarcoma with weekly Doxorubicin.
KSLDO	☐	☑	☐	Kaposi's Sarcoma Using Liposomal Doxorubicin
KSVB	☐	☑	☐	Therapy for Kaposi's Sarcoma Using Vinblastine-Vincristine
LYHDMRP	☑	☐	☐	Treatment of Primary Intracerebral Lymphoma with High Dose Methotrexate and Rituximab

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

CODE	Protocol	PPPO	Patient Handout	Changes	Protocol Title
BRAJACT	☑	☑	☑	*deleted*	Adjuvant Therapy for Breast Cancer using Doxorubicin
BRAJTAM	☐	☐	☑	*side effect sections revised*	Adjuvant Therapy for Breast Cancer using Tamoxifen.
BRAVTAM	☐	☐	☑	*side effects sections revised*	Palliative Therapy for Breast Cancer Using Tamoxifen.
CNB	☑	☐	☐	*typo corrected in Eligibility*	Suppressive Therapy for Prolactinomas using Bromocriptine
UGIAJFFOX	☑	☑	☐	*need for Special Access Programme deleted, calcium and magnesium premedications deleted*	Adjuvant Combination Chemotherapy for Stage III Colon Cancer Using Oxaliplatin, 5-Fluorouracil and Folinic Acid (Leucovorin).
UGICAPOX	☑	☑	☐	*need for Special Access Programme deleted, calcium and magnesium premedications deleted*	Palliative Combination Chemotherapy for Metastatic Colorectal Cancer Using Oxaliplatin, and Capecitabine.

CODE	Protocol	PPPO	Patient Handout	Changes	Protocol Title
UGICOXB	☑	☑	☐	*need for Special Access Programme deleted, calcium and magnesium premedications deleted*	Palliative Combination Chemotherapy for Metastatic Colorectal Cancer Using Oxaliplatin, Bevacizumab and Capecitabine.
UGIFFOXB	☑	☑	☐	*need for Special Access Programme deleted, calcium and magnesium premedications deleted*	Palliative Combination Chemotherapy for Metastatic Colorectal Cancer Using Oxaliplatin, 5-Fluorouracil, Folinic Acid (Leucovorin) and Bevacizumab.
GIFOLFIRI	☑	☐	☐	*eligibility revised*	Palliative Combination Chemotherapy for Metastatic Colorectal Cancer Using Irinotecan, Fluorouracil and Folinic Acid (Leucovorin)
UGIFOLFOX	☑	☑	☐	*need for Special Access Programme deleted, eligibility revised, calcium and magnesium premedications deleted*	Palliative Combination Chemotherapy for Metastatic Colorectal Cancer Using Oxaliplatin, 5-Fluorouracil and Folinic Acid (Leucovorin).
GOCXRADC	☑	☐	☐	*eligible histology revised*	Treatment of High Risk Squamous Carcinoma, Adenocarcinoma, or Adenosquamous Carcinoma of the Cervix with Concurrent Cisplatin and Radiation
GUBP	☑	☑	☐	*replaced by GUBRADC*	Therapy for Locally-Advanced Bladder Cancer Using Concurrent Cisplatin and Radiation
LUAVPEM	☐	☑	☐	*vitamin B12 injections added to appointments section*	Second-Line Treatment Of Advanced Non-Small Cell Lung Cancer (NSCLC) With Pemetrexed
LUAVTOP	☑	☑	☐	*creatinine required before each cycle*	Second Line Treatment Of Recurrent Small Cell Lung Cancer (SCLC) With Topotecan.
LUMMPPEM	☐	☑	☐	*vitamin B12 injections added to appointments section*	Treatment of Malignant Mesothelioma with Platinum and Pemetrexed.

NURSING ARTICLE OF THE MONTH

Tipton, J. et al. (2007). Putting evidence into practice: Evidence-based interventions to prevent, manage and treat chemotherapy-induced nausea and vomiting. **Clinical Journal of Oncology Nursing** 11(1), 69 - 78.

This article reviews and summarizes past and current empirical evidence related to both pharmacologic and non-pharmacologic interventions for CINV. The general principles related to prevention and management of CINV are summarized.

Breslin, S. (2007). Cytokine–release syndrome. Overview of nursing implications. **Clinical Journal of Oncology Nursing** Supplement to 11(1), 37 – 42.

This article reviews the factors and processes related to infusion reactions that occur with administration of monoclonal antibodies. The writer compares the physiological bases for allergic and cytokine release reactions, describes how one can distinguish between them, and then outlines nursing implications and patient caregiver education strategies.

Follow this link to a quick review test to assess your knowledge about Cytokine Release Syndrome.
http://www.surveymonkey.com/s.aspx?sm=uJAajt5NAR5n4ywp3sTovw_3d_3d

(Both of these articles are included in the eHLbc databases and should be available online from most Health Authority networks. If you can't get it by clicking this link, it is also available through the BCCA library or through the health librarian in your region.)

http://search.ebscohost.com/login.aspx?direct=true&db=byh&AN=23943159&site=ehost-live
http://search.ebscohost.com/login.aspx?direct=true&db=byh&AN=23943123&site=ehost-live

CONTINUING EDUCATION

BC Cancer Agency Annual Cancer Conference 2007 Mark your calendar! This year's conference will be held on 29 November – 1 December, at the Westin Bayshore Resort & Marina in Vancouver. The theme of the 2007 conference is "*Technology and Innovation – Bench to Bedside*".

Stay tuned for more information about the conference.

WEBSITE RESOURCES

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

REIMBURSEMENT AND FORMS: BENEFIT DRUG LIST, CLASS II, COMPASSIONATE ACCESS PROGRAM (UNDESIGNATED INDICATION)	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	www.bccancer.bc.ca/ChemoProtocols
CANCER CHEMOTHERAPY PRE-PRINTED ORDERS	www.bccancer.bc.ca/ChemoProtocols under the index page of each tumour site
SYSTEMIC THERAPY PROGRAM POLICIES	www.bccancer.bc.ca/HPI/ChemotherapyProtocols/Policies
UNCONVENTIONAL CANCER THERAPIES MANUAL	under Patient/Public Info, Unconventional Therapies

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VANCOUVER ISLAND CENTRE (VICC)	(250) 519-5500	Toll-Free 1-(800) 670-3322