Welcome to the September issue of NURSING MATTERS, a bi-monthly newsletter developed by oncology nurses in BC. Our aim is to help connect oncology nurses across the province and keep you informed of upcoming changes, events, opportunities, resources and research. We would love to hear your ideas and feedback! If you would like to submit an article, please email us at nursinged@bccancer.bc.ca for more information. This edition’s theme is highlighting what’s new in systemic therapy!

Just a reminder that monthly, new updates for systemic therapy are posted in the ST update as well as the Education Bulletin. Scroll down to see what’s new and what’s coming…

**WHAT’S NEW**

**Venetoclax**

Venetoclax is an oral chemotherapy treatment indicated for patients with relapsed or refractory chronic lymphocytic leukemia (CLL) and small lymphocytic lymphoma (SLL) who have progressed on other treatments. Venetoclax in this patient population comes with a high risk of Tumor Lysis Syndrome (TLS). To mitigate this risk, Venetoclax patients are required to pre-medicate, pre-hydrate, and follow a “ramp-up” titration technique to full dose. Additionally, patients must follow a strict lab monitoring regimen for Tumor Lysis Syndrome, which is closely monitored by the care team. Venetoclax education is now available on the H drive, and includes a TLS algorithm to help guide nursing assessment calls.

**Daratumumab Updates**

As you are all well aware, the pre-medication and dexamethasone dosing for daratumumab, as part of the UMYDARBD and UMYDARLD protocols, is quite complex.

As such, a patient education tool has been created to assist patients in understanding the schedule for taking their premedications, including specific instructions for dexamethasone (or prednisone). This tool can be filled out by the nurse or the pharmacist, and should be explained and given to the patient. The two documents will be housed on the H drive,
Biosimilars

In order to understand biosimilars, let's start with a quick review of biologics. Biologics are drugs that are created inside a living cell, rather than being produced by chemical reactions, and are used to treat several diseases, including cancer. Some biologics you may be familiar with include Bevacizumab, Trastuzumab, Rituximab, and Insulin.

Biosimilars, on the other hand, are biologic medicines demonstrated to be highly similar to a biologic that is currently marketed. There are no clinically meaningful differences between a biosimilar and its' reference biologic; they are equivalent in both results and side effects. All biosimilars are approved by Health Canada prior to use and are therefore safe and effective. One example of a biosimilar already in use at BC Cancer is Grastofil - reference biologic: Filgrastim (Neupogen).

Now that we’ve completed a biologics and biosimilars refresher, let’s get to the real question...why are we using biosimilars?? In 2016, Canada spent more than $3.6 billion on biologics, but use of biosimilars will show a 20-30% reduction in cost compared to reference biologics. In addition to reduced drug costs, biosimilars will also improve drug accessibility and may even help improve access in situations of drug shortages.

The first oncology biosimilar that will be implemented is Zirabev - reference biologic: Bevacizumab (Avastin). Future biosimilars will also substitute Trastuzumab and Rituximab. For more information, speak with your Clinical Nurse Educator!

Smoking Cessation Update

We are now live with our Smoking Cessation initiative at BC Cancer! We would like to thank everyone for attending education sessions, implementing the A-A-R conversations into practice, and promoting Smoking Cessation as a form of cancer treatment! Keep up the referrals to QuitNow and let’s help our patients quit smoking! Do you need a little inspiration for your “advise” statements? Check out the highlights of what Smoking Cessation can offer below:

- Improved wound healing following surgery
- Decreased risk of secondary cancers
- Decreased risk of coronary heart disease
- Prevention of COPD development
- Increased effectiveness of Radiation Therapy and Chemotherapy

EDUCATION & RESOURCES

Provincial Nursing Orientation

Did you know: The BC Cancer provincial nursing orientation is well underway in being revamped?
The BC Cancer Nursing Novice-to-Expert Pathway Development work is focused on addressing the gaps highlighted in a recent Needs Assessment while aligning the approach with best practice. The work is led by Dave Whiteside, BC Cancer Lead Education and Research, who is highlighted below! The goals of the orientation revision are to:

- Develop a structured/laddered approach to orientation and ongoing professional development, where information and learning experiences are clearly defined and support nurses along a novice to expert learning pathway.
- Integrate experiential learning opportunities (clinical experiences, case studies, skills labs, simulations) into our approach providing ‘real world experience’ and helping nurses incorporate theoretical knowledge into their practice; aligning with Best Practice Standards.

Four topics of the provincial nursing orientation, including but not limited to: cancer fundamentals, supporting patients with cancer, advanced care planning, and a spill simulation have all been revised or developed. The first endeavor with the revised curriculum is happening this October, and the project work continues with revising other orientation components into the New Year.

**HIGHLIGHTS**

**David Whiteside - Lead, Education and Research**

I have worked in Oncology for my entire nursing career, including inpatient and outpatient Oncology settings in Victoria, Kelowna and Calgary, and I couldn’t imagine working anywhere else!

I previously worked for BC Cancer as a Radiation Therapy nurse from 2009-2011 before returning to Alberta in 2011 where I was a Clinical Educator and the Provincial Coordinator for the Oncology Practice Readiness Education Program. When the Lead for Education and Research in the new Patient Experience Interprofessional Practice portfolio was posted in 2018, I jumped at the chance to be a part this new team, move to Kelowna and leave the Calgary winters behind.

Currently, I am working with the provincial nursing team to develop learning pathways that better support the oncology nurse. This means structuring orientation and professional development opportunities that provide nurses with the right information at the right time, ensuring they are ready to practice after orientation, as well as providing a roadmap on how nurses can continue their professional development along a novice to expert pathway.

We are excited to be rolling out our first updates to the BC Cancer Nursing Orientation in October, which focuses on incorporation of experiential learning opportunities and ensuring our new oncology nurses are given information that is appropriate for the novice oncology nurse.

Fun Facts: I love to travel and have been to China 4 times where I hiked the Great Wall of China twice and even got to hold a baby panda!

**Centre Updates: BC Cancer Prince George, Centre for the North (CN)**

The Early Palliative Integration into Cancer Care (EPICC) pilot project was recently implemented for palliative Radiation Therapy patients. The project focuses on integrating an early palliative approach into the standard delivery of care using repeat symptom screening, as well as pain/symptom management algorithms. An early palliative approach to care can:

- Provide relief from pain and other distressing symptoms
- Integrate the psychological and spiritual aspects of care
- Decrease depression and anxiety
- Improve quality of life and symptom management
- Result in a longer lifespan while lowering the costs of care
- Offer a support system to help patients live as actively as possible until death
- Affirm life and regard dying as a normal process, while neither hastening nor postponing death

The EPICC project is patient-and-family-centered; it allows patients to determine their most significant concerns and receive support in a team-based environment. It also allows for tracking and trending of distressing symptoms over time, which helps to identify early opportunities for intervention and support. CN’s nursing team has been working hard in this new model of care to help better support a vulnerable population of patients. A huge shout out goes to Beth Skaggedal, CN’s amazing EPICC Coordinator, and the nursing staff who have helped to seamlessly integrate EPICC into patient care!

In collaboration with the Vancouver Prostate Centre, the Prostate Cancer Supportive Care (PCSC) Program was implemented in BC Cancer Prince George in October 2018. The PCSC program is a comprehensive program designed to provide support to prostate cancer patients, their partners, and family members. The program’s goal is to reduce stress and help patients maintain a good quality of life starting from the time of diagnosis. Using clinical, educational and evidence-based strategies, the PCSC program aims to address the educational, physical and psychological needs of the prostate cancer population across the entire disease trajectory. The program is also available in BC Cancer Victoria, Kelowna and Surrey. The program offers regular education sessions along with clinical services in a modular approach to care. Education sessions are available to patients in person or online via WebEx.

1) Introduction to Prostate Cancer & Primary Treatment Options
2) Managing the Impact of Prostate Cancer Treatments on Sexual Function & Intimacy
3) Lifestyle Management
   a) Nutrition Advice for Prostate Cancer Patients
   b) Exercise for Prostate Cancer Patients (WebEx only)
4) Recognition and Management of Treatment Related Side Effects of Androgen Deprivation Therapy
5) Pelvic Floor Physiotherapy for Bladder Concerns
6) Counselling Services (beginning in October)
7) Advanced Disease Management (WebEx only)

For more information or to refer a patient, please contact Brittany Schultz, Nurse Coordinator at 250-645-7355 or cn.psc@bccancer.bc.ca, or visit the website at www.pscprogram.ca

FEATURE ARTICLE

Understanding Cancer Series

In lieu of highlighting a feature article this month, and considering the launching of the new ULYVENETO protocol, we thought it would be a good opportunity to review Chronic Lymphocytic Leukemia (CLL), in our first “Understanding Cancer” article.

Understanding Chronic Lymphocytic Leukemia

Leukemias are grouped based on the type of abnormal blood stem cell they originate from (lymphoid or myeloid), as well as how quickly the leukemia develops. Unlike acute leukemias, CLL develops slowly over months or years.

Risk of CLL is higher in people over the age of 50 and more prevalent in men and people of Russian and European descent. Family history may also increase CLL risk. Other factors include obesity, exposure to pesticides, Agent Orange (exposure occurring in the Vietnam War), and inhaling benzene.
Diagnosis can be complicated as symptoms develop gradually and can be quite vague, while some people have no symptoms at all. Often people report a general sense of feeling unwell. Lab investigations typically highlight abnormalities within the CBC such as lymphocytosis, anemia and thrombocytopenia. Further investigation and staging includes:

- **Flow cytometry**—chemicals or dyes are applied to leukemia cells in the lab using fluorescence and laser. The defined light patterns of the surface proteins or immunophenotypes distinguish CLL from other leukemias. The cells are characteristically small mature lymphocytes with a very narrow cytoplasm and dense nucleus. No nucleoli are discernible. This is used as a prognostic indicator in addition to measuring response to treatment.

- **Cytogenetics**—specifically looking at specific mutations or changes by using Fluorescence in situ hybridization (FISH) and polymerase chain reaction (PCR). Some common genetic changes include deletions of 11q or 17p and an extra copy of chromosome 12 (trisomy12). This information guides treatment choices.

Physical examination may show an enlarged liver or spleen. Ultrasound or CT scan may be performed to aid in diagnosis. **Bone marrow biopsy and aspiration are only performed if other tests are inconclusive.**

The staging system used at BC Cancer is the modified Rai system, which classifies individuals as low, intermediate, or high risk. **Low risk (Stage 0)** shows lymphocytosis in blood and bone marrow (if bone marrow biopsy was completed). **Intermediate risk (Stage I and II)** identifies additional lymphadenopathy (I) and an enlarged liver or spleen (II). **High risk (Stage III and IV)** may include high levels of lymphocytes and anemia (III) or low platelets (IV), as well as findings from the low and intermediate stages.

**Treatment** is only indicated if the patient is symptomatic and the lymphocyte doubling time remains greater than 6 months. If CLL progresses to the point of needing treatment, decisions are based on the onset of new symptoms combined with the cytogenic profile. Systemic therapy treatment may include fludarabine and rituximab, with the addition of cyclophosphamide for some patients. A subset of patients may be candidates for stem cell transplant. For patients with immune mediated hemolysis or thrombocytopenia, prednisone initially plays a role until cell destruction is controlled and chemotherapy is initiated. These are just a few examples highlighting the complexity of the treatment decision-making. Supportive medications include allopurinol for tumor lysis and IVIG for hypogammaglobulinemia with repeated infections. There are limited indications for radiation therapy and splenectomy.

Signs of **disease progression** include more than 10% weight loss in 6 months, extreme tiredness, fever for more than 2 weeks without infection, night sweats longer than one month, bone marrow failure and anemia/thrombocytopenia that do not respond to steroids, enlarged spleen, enlarged lymph nodes, enlarged liver and lymphocytes increasing by more than 50%. More treatment choices for second line chemotherapy continue to emerge for CLL that is shown to be refractory with cytogenetics and symptoms still guiding decisions. The diagram to the right demonstrates the use of venetoclax in the CLL population.

**Who will receive ULYVENETO?**

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<tr>
<th>Chronic Lymphocytic Leukemia (CLL)</th>
<th>Small Lymphocytic Lymphoma (SLL)</th>
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<tr>
<td>Progressed or refractory (CYTOKIN)</td>
<td>Progressed or other standard regimen (LYMPHOCYTIC)</td>
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<td>Refractory to first or other standard regimen (LYMPHOCYTIC)</td>
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**References:**