@CANO/ACIO

FALL 2022

CANO/ACIO Overview 2022

By: Claire Fullerton, British Columbia Chapter

Rejuvenating is how many would describe the CANO/ACIO Conference 2022 held in Victoria this Fall. Full of anticipation and passion, the attendees' enthusiasm reverberated as the first in-person CANO/ACIO conference since 2019 commenced. The theme this year, ***Together again: Connection, Reflection, and Celebration*** underpinned each conference day. Minds were turning with new ideas while laughter filled the rooms as Oncology Nurses from across Canada shared research, generated innovation, and captured new knowledge. Inspired by the sea air and overlooking the inner harbour, friends old and new came together. Fueled by delicious cuisine and restful sleep at the Empress, there was much to celebrate. Altogether the conference had more than Five-hundred attendees and over one-hundred presentations, posters and workshops filled the four days. Highlights included:

- Well wishes and thanks to Reanne Booker for her dedication and leadership as President over the past three years, as the new president Lorelei Newton was welcomed
- Much appreciation for the planning committee's hard work and organization
- Impactful and insightful workshops that fostered learning
- Energetic and interactive presentations
- A diverse and inclusive environment in every room
- Serene and calming break rooms for mindful reflection between sessions
- Gamification to interact with vendors and sponsors
- Purposeful networking with other Oncology Nurses followed by refreshing socials

UPCOMING EVENTS

2022 CANO/ACIO ANNUAL CONFERENCE

Poster viewing is available to registered attendees until May 31, 2023
Attendee Website

JAZZ PHARMA SPONSORED WEBINAR

Wednesday, January 25, 2023
STEM: A Transplant App for Nurses
Registration Open

CONJ HIGHLIGHTS

Canadian nursing and genomics: An engagement initiative | Soins infirmiers et génomique au Canada : un exemple de mobilisation

Lindsay Carlsson, Jacqueline Limoges

Improving community and healthcare services for young adults living with cancer: Suggestions from a multiple stakeholder workshop | Comment améliorer les services communautaires et les soins de santé aux jeunes adultes atteints du cancer : suggestions présentées au cours d'un atelier multipartite

Karine Bilodeau, Benedicta Hartono, Virginia Lee, Nathalie Folch, Danielle Charpentier, Marie-France Vachon, Marie-Pascale Pomey, Serge Sultan, Billy Vinette, Ali El-Akhras

CANO ACIO

WEBINAR RECAP

Recap by: Vanessa Pagtakhan, Alberta North Chapter
Wednesday, July 20, 2022

CAR-T THERAPY: A NURSING PERSPECTIVE

Presenters: Laurie Ann Holmes, RN BScN CON(C) CHPCN(C)

Learning Objectives:

1. Define CAR-T therapy process
2. Identify potential acute complications and management
3. Discuss potential long term complications
4. Explore the future of CAR-T therapy

Three Takeaways:

1. In Canada, there are two CART products currently approved by Health Canada for treatment of patients (Lymphoma or select ALL) who have failed at least two lines of chemotherapy. These products are available in Alberta, Ontario, Quebec, and, most recently, Nova Scotia. The future of CAR-T may include treatment for solid tumors or multiple myeloma, allogeneic or multiple CAR-T's, or more specific "designer" CARs.
2. Two most common complications from CAR-T therapy are cytokine release syndrome (CRS) and immune effector cell-associated neurotoxicity syndrome (ICANS). Other complications arising from CAR-T cell therapy are cytopenias, tumor lysis syndrome, hemophagocytic lymphohistiocytosis, infections and hypogammaglobulinemia.
3. Depending on the facility, nursing care is provided as an outpatient or inpatient. CRS and ICANS monitoring needs be done frequently through handwriting assessments, physical assessments, vital sign monitoring, and bloodwork. Health Canada requirements for the two approved products include patient follow up for at least 15 years.

Watch the Webinar

WEBINAR RECAP

Recap by: Zoe Ignacio, Manitoba Chapter
Wednesday, August 10, 2022

AYAS: WHAT YOU NEED TO KNOW ABOUT THIS UNIQUE POPULATION IN ONCOLOGY NURSING

Presenter: Britney Chodkiewicz, RN

Learning Objectives:

1. Identify the Adolescent and Young Adult (AYA) population
2. Describe the challenges of facing cancer for AYAs
3. Highlight key areas requiring support for AYAs
4. Identify AYA programs and community resources available

Recap:

Adolescents and Young Adults in Canada range from 15 to 39 years of age, and the incidence of cancer in this population is increasing.

The needs, which are not adequately met, of AYA population are unique compared to the adult and pediatric populations in oncology.

Since the development period is significant for AYA, there are unique challenges faced by this group, such as physical, identity, independence, education, career, relationships, sexuality, fertility, and survivorship. These challenges are opportunities to provide support for them.

AYA programs offer a number of supports, community resources, and activities. These activities have been beneficial that patients felt less isolated, supported, improved well-being, gained confidence and knowledge, better coping skills, self-efficacy, and effective interpersonal interactions.

To learn more on a number of resources for AYA populations with cancer in Canada, watch the webinar.

Watch the Webinar

WEBINAR RECAP

Recap by: Catherine Fox, Alberta South Chapter
Wednesday, August 31, 2022

ONCOFERTILITY 101: IMPROVING ADOLESCENT AND YOUNG ADULTS (AYAS) CONNECTION TO FERTILITY SUPPORT IN CANCER CARE

Presenter: April Hildebrand, RN, BScN; Senior Change Management Consultant

Learning Objectives:

1. Understand national recommendations and work supporting oncofertility from the "Canadian Framework for the Care and Support of Adolescents and Young Adults with Cancer" (Canadian Partnership Against Cancer, 2019)
2. Understand the unique concepts underpinning oncofertility support and resources for AYA cancer patients
3. Understand how to incorporate oncofertility conversations and support into oncology nursing practice

Key Takeaways

Oncofertility is a discipline that intersects cancer treatment and fertility medicine. It aims to preserve the fertility of cancer patients at risk of becoming infertile due to their disease or the associated treatments. However, it is essential to note that a patient's treatment-related fertility risk depends on their unique circumstances (history, type of cancer, age, etc.).

Fertility is an important aspect for AYA patients. Research has shown that fertility significantly contributes to cancer survivors' quality of life. There has been an increase in the age-standardized incidence rate of cancer for the AYA population, and cancer survival has improved for this age group. AYA patients can be significantly impacted by the personal, societal, and socio-economic ramifications of cancer treatment.

AYA patients are uniquely positioned because they can be going through significant milestones and developmental phases during their diagnosis and treatment. The psychosocial impacts of cancer-related infertility are one of the most challenging long-term consequences of cancer that can be associated with depression, anxiety, grief, low self-esteem, and changes to gender identity.

Integrating oncofertility into your oncology nursing practice can start at the individual level with each patient. Part of this is ensuring patients are informed of the fertility risk of cancer treatment and knowing what resources and services are available to them. As healthcare professionals, we can advocate for our patients to help bridge the gap between our AYA patients and fertility services by bringing forward the unmet needs of these patients and getting involved with special interest groups such as the CANO/ACIO AYA or Survivorship.

Watch the Webinar

CANO MEMBERSHIP SPOTLIGHT

Joy Tarasuk, Nova Scotia Chapter, CANO/ACIO Director at Large, Communications

WHERE ARE YOU FROM? I was born, raised and reside in Halifax, Nova Scotia.

TELL US A LITTLE ABOUT YOU AND YOUR FAMILY? I have two amazing adult children. My son is a police officer, and my daughter a hematology oncology RN. This past September I also gained a daughter-in-law. And cannot forget my fur boy and home office companion, Jasper! (our family's 11 year old yellow lab)

WHAT'S YOUR FAMILY'S FAVORITE THING TO DO TOGETHER? We love to go for walks at Point Pleasant Park or a beach with Jasper. And always enjoy eating out at a nice restaurant (the choice of where to go is the toughest part!)

IF YOU COULD BE ANY ANIMAL IN THE WORLD, WHAT ANIMAL WOULD YOU BE AND WHY? Hmmm… I think I would be a giraffe. They are fascinating animals- fun-loving, wise, graceful, and loyal, curious and constantly learning, agile and move with great speed! Why not?

WHAT INSPIRED YOU TO WORK IN ONCOLOGY NURSING? I drew myself as a nurse in my Grade 1 autobiography, so my career was chosen early in life. In terms of oncology, I think it chose me. I was contacted twice with an offer for a casual position in the Nova Scotia Cancer Centre, before hesitantly accepting. It was not long before I knew this was the specialty for me. My colleagues were incredibly passionate, and it was such a privilege to journey through cancer experiences with patients and their families.

HOW DID YOU BECOME INVOLVED IN CANO/ACIO? I have been truly inspired by oncology mentors and leaders since Day 1. Shortly after starting in my casual role, my colleagues were preparing to host the CANO/ACIO Conference (I believe 1998?) – the excitement was palpable. I have been fortunate to attend a number since- each time leaving completely energized. I have been involved at the provincial chapter level as treasurer, president, and conference Co-Chair for the 2011 conference. Eventually I became involved in national initiatives- Recognition of Excellence Committee, and then Co-Chair of the Leadership SIG. Each experience has been so positive.

> **"In terms of oncology, I think it chose me…My colleagues were incredibly passionate, and it was such a privilege to journey through cancer experiences with patients and their families."**
>
> *Joy Tarasuk*

WHAT DO YOU LIKE ABOUT BEING INVOLVED IN CANO? Everything- the opportunities to get involved locally and nationally to learn and share; and most of all the amazing network of oncology nurses I have met through CANO/ACIO! I am thrilled to be stepping into the DAL-Communications position, and making new connections!!

IF YOU HAD A CHOICE BETWEEN TWO SUPERPOWERS, BEING INVISIBLE OR FLYING, WHICH WOULD YOU CHOOSE? I think it would be flying so I could discover new places and see things from a broader view.

FAVORITE THING TO DO ON DAY OFF? I love to be out in nature- near the ocean, or on a trail!

FAVORITE THING ABOUT BEING AN ONCOLOGY NURSE? The multidisciplinary team approach to ensure persons with cancer have access to the best care. It is incredibly complex, and incredibly rewarding.

COOLEST PLACE YOU HAVE EVER TRAVELLED TO? Snorkeling with turtles and stingrays, and swimming in a cenote in Mexico, was amazing! Have many places remaining on my bucket list!

COFFEE OR TEA? Definitely coffee!

SWEET OR SALTY? Salty for me!

DOGS OR CATS? I love all animals but would have to choose dogs.

EARLY BIRD OR NIGHT OWL? An early bird. Quiet peaceful mornings, with coffee, are the best!

TIM HORTONS OR STARBUCKS? Starbucks!

TREATMENT AT A GLANCE

ALLOGENEIC HEMATOPOIETIC STEM CELL TRANSPLANT (PART I)

By: Hassan Zahreddine, Ontario – Horseshoe Chapter

WHAT IS ALLOGENEIC HEMATOPOIETIC STEM CELL TRANSPLANT?

Allogeneic hematopoietic stem cell transplant (HSCT) is a form of cellular therapy that has been established as a lifesaving treatment for multiple diseases ranging from hematological malignancies, to bone marrow failures, and inborn disorders. The transplant is performed by collecting hematopoietic stem cells (HSC) from a donor, and infusing them into a recipient ***(patient)*** after receiving a preparative regimen consisting of chemotherapy, immunotherapy, with or without total body irradiation. The goals of allogeneic HSCT may vary based on the underlying disease. In hematologic malignances, such as acute leukemia, the main goals are to replace the recipient's bone marrow cells with that of the donor, and induce a graft vs leukemia effect. In non-malignant conditions, it is often used to replace a defective or inefficient bone marrow.

WHAT ARE THE GOALS OF THE PREPARATIVE REGIMEN?

The goals of the preparative regimen are to:

1. Destroy the disease or cancer cells.
2. Make a space in the bone marrow for the new donor stem cells.
3. Suppress the patient's immune cells just enough to allow the donor cells to engraft.
4. Prevent the donor T cells from mounting an attack against the patient's organs, known as graft vs host disease (GVHD).

HOW IS A MATCHED DONOR DETERMINED?

The human leukocyte antigen (HLA) complex represents our immunological identity, and is a key factor for surviving allogeneic HSCT. It encodes the major histocompatibility complex (MHC) proteins on the cell membrane. One of its main functions is to distinguish self proteins from non-self proteins. This helps our immune system mount a response against invading foreign proteins that do not belong.

The HLA complex is classified into three classes: class I, class II, and class III. A matched donor is identified by matching HLA class I and class II with the recipient. A high resolution typing at HLA-A, B, C, DRB1, and DQB1 loci is the gold standard for identifying a fully matched donor.

WHO CAN BE A DONOR?

Donors can be related or unrelated, and matched or mismatched. The HLA complex is inherited and passed from parents to children on the short arm of chromosome 6. Hence, we inherit 50% of the HLA genotypes from each parent. Siblings are often referred to as related donors, and since siblings inherit from the same genotypic pool, there is always a 25% chance that a sibling is a full match at the required HLA loci. Unrelated donors are found throughout stem cell donor registries across the world. Although the degree of the HLA match between the donor and recipient contribute to a lower incidence of transplant related mortality, mismatched donors at certain HLA loci can be utilized when a transplant is critical to the patient's survival, and a matched donor cannot be found. Haploidentical donors refer to the recipient's biological children and parents who are at 50% match across the HLA complex genotypes.

DID YOU KNOW?
In 1961, two Canadian scientists from the University of Toronto, Dr. Ernest McCulloch and Dr. James Till demonstrated the hallmark properties of stem cells for self-renewal and differentiation.

HOW ARE STEM CELLS COLLECTED?

Hematopoiesis refers to the process of blood cells formation and differentiation from the hematopoietic stem cell (HSC). In adults, it predominantly occurs in the bone marrow of long and flat bones such as the iliac crest, sternum, and vertebral column. The HSC is capable of self renewal and differentiation into all types of blood cells. The transmembrane protein marker CD34 is used to identify the HSC from other cells during stem cell collection. HSC can be collected from the bone marrow, peripheral blood, or umbilical cord blood (UCB).

For decades, HSC were collected surgically under general anesthesia by penetrating the iliac crest with multiple bone marrow aspirate needles. The bone marrow is aspirated through heparinized syringes then filtered to remove fat and bone fragments. However, this practice has mainly shifted to peripheral blood stem cell (PBSC) collection two decades ago. PBSC are collected from donors by

increasing the circulation of CD34 cells in the peripheral blood. This is achieved by injecting the donor with a blood growth factor such as G-CSF over a period of few days prior to collection. The CD34 cells are then collected into a bag through an apheresis procedure, and administered to the recipient as a fresh product, but it can also be cryopreserved for later use in some cases. UCB is collected immediately after delivery of the baby and placenta, and stored as a cryopreserved product. It is primarily used in the pediatric population due to the limited number of CD34 cells in the UCB unit needed for an adult patient.

HOW ARE STEM CELLS INFUSED?

Prior to stem cell infusion, the recipient is given a preparative regimen consisting of chemotherapy, immunotherapy, and sometimes total body irradiation over a period ranging between 5 to 10 days. A thorough verification process is followed to ensure that the product information matches the donor and recipient. Although ABO blood type compatibility between the donor and recipient is not essential in the matching process, pre-medications are given to prevent hemolytic reactions. The stem cells are infused through a central line using gravity by a trained nurse, and the patient is monitored closely during the infusion, and for a few hours afterwards.

Stay tuned for Part 2 in the next issue where we discuss the transplant process and post-transplant complications.

References

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