



# Cancer in Pregnancy

COURSE SYLLABUS (CAIPODM21)

2021

**Course Authors:** Iman Salehi <sup>1</sup>, Linda Muraca RN, BA, MN <sup>2</sup>, Andrew Han BScPharm <sup>3</sup>, Susan Guest RN, MN, IBCLC, PNC (c) <sup>4</sup>, Catherine Chan RN (retired) <sup>4</sup>, Rebecca Barrett MSW <sup>2</sup>, Dr. Jonathan Hunter <sup>2</sup>, Dr. Anabel Scaranelo <sup>5</sup>, Dr. Andrea Covelli <sup>2</sup>, Dr. Cynthia Maxwell <sup>4</sup>, Dr. Christine Elser <sup>2</sup> and 12N Oncology Nurses <sup>3</sup>.

Faculty of Applied Health Sciences, University of Waterloo <sup>1</sup>, Breast Oncology Team, Marvella Koffler Breast Centre, Mount Sinai Hospital (MSH)<sup>2</sup>, Ruth Burnett Centre for Outpatient Oncology, MSH <sup>3</sup>, Special Pregnancy Program - Maternal Fetal, MSH <sup>4</sup>, Joint Department of Medical Imaging <sup>5</sup>

**Course Format:** eLearning

**Contact Information:** [Linda.Muraca@sinaihealth.ca](mailto:Linda.Muraca@sinaihealth.ca)

**Technical Support:** [support@desouzainstitute.com](mailto:support@desouzainstitute.com)

**Registration:** Required

**Prerequisite:** None

## A. COURSE DESCRIPTION

This course covers cancer care for patients diagnosed with breast cancer during pregnancy. The topics for these 9 concise mini modules were identified by ambulatory oncology nurses who requested this resource. This course would prepare the healthcare professional about to care for a pregnant patient who is newly diagnosed with breast cancer and will need a diagnostic work up – including genetic considerations, obstetrical and neonatal monitoring, surgery, systemic therapy including supportive drugs, psychosocial support, and lactation support.

Although you can complete the various components of the course at your own pace, the course must be completed within **4 weeks from the time you register** for the course (this date can be found on the course information page in *My Account*).

## B. de Souza DESIGNATION CREDITS

---

**Domain of Practice** Treatment and Delivery of Evidence Based Care

**Learning Hours** 5 hours

**de Souza Credit** *None*

---

## C. COURSE OBJECTIVES

By the end of this course, you will be able to:

### Module 1- Introduction

- Identify the three most common cancers diagnosed during pregnancy
- Define the difference between the term breast cancer diagnosed during pregnancy (PrBC) and during the postpartum period (PPBC)
- Explain why a breast mass in a pregnant patient persisting longer than 2 to 4 weeks should be taken seriously and the assessment that should be carried out
- Recognize the importance of precise communication between the oncologist/oncology team and high-risk obstetrician/ obstetrical team in collaboration with a larger multidisciplinary team

### Module 2 – Medical Imaging

- List the diagnostic procedures in imaging and biopsy recommended during pregnancy
- Describe the general principles of assessing the amount of fetal radiation exposure

### Module 3- Genetic Considerations

- Describe the percent of breast cancers that are hereditary
- Explain the importance of assessing family history and other risk factors that may warrant a genetic referral
- Describe how a positive genetic result may impact screening and follow up management after childbirth

### Module 4 – Surgical Care

- Identify the timing and safety of each breast cancer surgery procedure (including reconstruction) during pregnancy
- Describe the option of sentinel lymph node biopsy (SLNB) and axillary lymph nodes dissection during surgery and list any restrictions
- List the risks associated with anesthesia during the surgery and the drugs and techniques that are safe for both mother and baby

### Module 5 – Psychosocial Support

- Recognize symptoms of distress commonly experienced by patients and their loved ones who are diagnosed with breast cancer during pregnancy
- Identify emotional and physical challenges of managing parental responsibilities while under cancer treatment
- Illustrate psychological impact on the patient including body image, future health, anticipatory grief and loss, and worry about the future of the child
- Identify community supports resources specific to pregnant patients and their families

### Module 6 – Obstetrical Monitoring

- Explain the importance of timely referral a pregnant woman with breast cancer to a high-risk obstetrical healthcare provider
- Describe specific assessments of the mother and fetus that should be carried out during diagnosis and before the initiation of any oncological treatment assessments
- Identify the types of prenatal monitoring during pregnancy in collaboration with the oncology team

### Module 7– Neonatal and Pediatric Monitoring

- Describe assessments specific to neonates exposed to chemotherapy in utero
- Identify follow up assessments to measure physicals and assess physical, neurological, and psychological development in young children who were exposed to chemotherapy in utero

### Module 8 – Systemic Therapy

- State the specific timing for chemotherapy in relation to gestational stage, and fetal safety
- Identify the preferred breast cancer regime to date, and when endocrine and anti-HER 2 and endocrine therapy should be given
- Describe general principles when delivering chemotherapy during pregnancy and the role of supportive drug agents.

### Module 9 – Lactation Support

- Explain why breast imaging during lactation is difficult, and what types of counselling should be given to patients before an imaging procedure.
- Describe the relationship between breast or chest feeding, surgery, radiation, and chemotherapy and why breastfeeding is not recommended during chemotherapy.
- Recognize why a lactation consultant/expert should be part of the multidisciplinary team.

## D. MODE OF LEARNING

The eLearning environment fosters a self-directed approach. You can progress through the modules and exercises at a convenient time, at home or work.

- **eLearning Modules:** Modules were developed by the course authors and de Souza education team to reflect the latest knowledge in this content area.

## E. MODES OF EVALUATION

As part of the evaluation process, you are required to complete the following:

- **Participant Baseline Survey:** This survey assesses your knowledge, attitude, confidence before you begin the eLearning modules for the course.
- **eLearning modules:** You must complete all modules by course end date.
- **Participant Post-Course Evaluation:** At the end of the course, you will be required to complete a “Participant Post Survey” where you can provide your feedback on whether the content met your professional practice needs. These surveys are facilitated electronically through eLearning

When you have successfully met all the above requirements, you will receive **5 learning hours**. An email will be sent to you containing instructions on how to download your **certificate of completion** via your “My account”.

## F. EXPECTATIONS FOR PARTICIPANTS

To be successful in completing this course, you are encouraged to set aside 1-2 hours each week to complete each section as learning is self-directed. The total learning hours for this course is **5 hours**.

Your course activity completion will be reflected in your **grade book**. You are expected to complete all modules and all other course requirements within **4 weeks** from the time you register for the course.

## G. FACILITATOR AVAILABILITY

This course is **self-directed**. However, a course facilitator is available to:

- Answer your questions related to course content.
- Monitor the registration process.
- Be available to you for questions throughout the course.

You can expect the facilitator to respond to your questions within 24 hours during the week and within 72 hours at the weekend.

Your facilitator is: Linda Muraca: [Linda.Muraca@sinaihealth.ca](mailto:Linda.Muraca@sinaihealth.ca)

Technical support is available by contacting [support@desouzainstitute.com](mailto:support@desouzainstitute.com)

## H. COURSE AUTHORS' & FACILITATORS' BIOGRAPHY

### Linda Muraca RN, BA, MN

Linda is an Oncology nurse and breast health nurse clinician in the Marvelle Koffler Breast Centre, Sinai Health. Linda developed breast health programs for women without a personal history of breast cancer which was delivered to several diverse communities. Linda led the development of an online web platform called Be Breast Healthy, which was launched in 2019. She also led the development of a diet, physical activity and weight loss program for breast cancer survivors called the Taking Charge Program. This program is being standardized and will be available to community health groups in 2021. Linda, along with Dr. Christine Elser, Medical Oncologist and Dr. Cynthia Maxwell, Maternal-Fetal Medicine Specialist/Division Head, coordinated and managed a co-op University student, Iman Salehi who co-wrote these modules in partnership with the Oncology/Obstetrical multidisciplinary working group.

## I. TECHNICAL SUPPORT

### eLearning Centre Orientation

The eLearning Centre Orientation is designed to introduce you to online learning and to help you understand how to navigate through the de Souza Institute eLearning centre and courses. It is strongly recommended that you complete this orientation so that you will be able to successfully navigate de Souza's eLearning environment.

### de Souza Institute Support

If you have questions about the content of this course, please email your course facilitator.

If you need assistance accessing or navigating the eLearning Centre, please refer to the eLearning Orientation course. If you have questions or have any general technical difficulties, please contact [support@desouzainstitute.com](mailto:support@desouzainstitute.com).

## J. POLICIES AND PROCEDURES

Click the links below to review de Souza's Policies.

[Academic Honesty and Copyright Policy](#)

[Cancellations, Incomplete and No Show Policy](#)

[Request for Accommodation Policy](#)

Course content and resources provided in this course are based on best practice guidelines from provincial and national bodies. Local protocols and policies vary among healthcare organizations; please consult educators within your organization if you have specific questions related to local protocols and policies.