

## What is Neoadjuvant Treatment

Neoadjuvant therapy is systemic treatment given prior to surgery or definitive treatment<sup>1</sup>. This is often done to shrink a tumour to become more operable — increasing the chance of successful surgery and reducing the chance of recurrence in patients with locally advanced or inflammatory breast cancer. Other advantages of systemic therapy prior to surgery include<sup>2</sup>:

- Being able to assess tumour response, which can determine the future prognosis
- Allowing for the option of additional postoperative adjuvant chemotherapy for tumours where a significant amount of cancer is leftover after surgery
- Earlier control of hidden cancer metastases
- Allows for evaluation of how biomarkers respond to certain treatments
- Shrinks a tumour, allowing for breast-conserving surgery rather than mastectomy
- Shrinking enlarged lymph nodes, allowing for easier removal<sup>3</sup>

<u>Chemotherapy</u> is the most common neoadjuvant therapy, but hormonal and radiation therapies are also possible treatments given prior to surgery. Immunotherapy can also be used in the neoadjuvant setting for the treatment of triple negative breast cancer. Your healthcare team will choose your treatment plan based on your breast cancer stage, type, and sub-type. There is increasing evidence that neoadjuvant therapy may be also beneficial in certain types of earlier stage breast cancers. Currently, HER2-positive and triple negative and other high-risk breast cancers are considered particularly good candidates for neoadjuvant treatment. When a tumour undergoes a pathological complete response (disappearance of all invasive cancer) to neoadjuvant chemotherapy, there is even a greater chance of a long term cancer survival<sup>4</sup>.

#### What to Expect after Neoadjuvant Therapy

You may have testing done to see the cancer's response to neoadjuvant treatment<sup>3</sup>. Depending on how effective it was, surgery may be changed from a mastectomy to a lumpectomy. Either way, your surgery will be planned under the same guidelines as if you had not received neoadjuvant care. Surgery may also be followed with adjuvant therapy to ensure that any remaining cancer cells are gone.

## What is Adjuvant Treatment

Adjuvant therapy is systemic treatment given after surgery or main treatment<sup>5</sup>. Adjuvant therapy aims to destroy any remaining cancer cells left in your body after surgery to reduce the chance of the cancer coming back. The type of therapies for adjuvant therapy can sometimes be the same as those given in neoadjuvant care.

# Neoadjuvant Treatment Versus Adjuvant Treatment

While the types of treatments can sometimes be the same for both neoadjuvant and adjuvant treatment, there are times when one is preferred over the other. One instance when neoadjuvant therapy is preferred over adjuvant is where it is needed in order to shrink the tumour to become resectable<sup>6</sup>. In many instances, both neoadjuvant and adjuvant treatments are used<sup>6</sup>. The type of treatment for adjuvant therapy may be different depending on how a patient responds to neoadjuvant therapy (for example, if a patient did not respond strongly to one type of chemotherapy during neoadjuvant treatment, a different kind may be used for adjuvant treatment). Use of adjuvant therapy may also depend on the type of breast cancer, like in the case of adjuvant immunotherapy for triple negative breast cancer.

The hope for better survival is the main driver for neoadjuvant treatment for smaller triple negative and HER2-positive cases since residual disease, which would imply a higher future risk, allows for risk-adapted use of extra adjuvant chemotherapy to further improve survival.

### **Neoadjuvant Treatment in Canada**

Seeing a medical oncologist to decide on treatment (including neoadjuvant/adjuvant) is the standard of care for majority of patients in Canada<sup>7</sup>. The following factors should be considered when deciding on neoadjuvant or adjuvant chemotherapy<sup>8</sup>:

- Sub-type of breast cancer
- Prognosis/<u>overall survival</u>
- Toxicity risks
- Overall health of the patient
- Patient preference

These factors need to be considered as they can determine the type of treatment a patient receives. For example, non-operable (locally advanced or inflammatory) HR+/HER- breast cancer guidelines suggest neoadjuvant chemotherapy and adjuvant hormonal therapy<sup>8</sup>. Neoadjuvant therapy is also recommended for patients with locally advanced, inflammatory, triple negative, or HER2-positive breast cancers. CBCN's MedSearch digital tool is a database of breast cancer therapies available across Canada and contains information on whether treatments are approved for use in the neoadjuvant or adjuvant setting.

- [1] Neoadjuvant Therapy. National Cancer Institute. Accessed December 8, 2022.
- [2] Neoadjuvant Therapy. BC Cancer. Accessed December 8, 2022.
- [3] Breast Cancer Information: Neoadiuvant Therapies. Komen. Accessed December 8, 2022.
- [4] Neoadjuvant Chemotherapy in Breast Cancers. Womens Health. Accessed December 8, 2022.
- [5] Adjuvant Therapy, Cancer.Net. Accessed. December 8, 2022.
- [6] What's the difference: Adjuvant and neoadjuvant therapies. Cancer Treatment Centers of America. Accessed December 8, 2022.
- [7] Breast Cancer Surgery, PAN Canada Standards. Accessed December 16, 2022
- [8] Systemic Therapy for Early Breast Cancer. Cancer Care Alberta. Accessed December 16, 2022

# Self-Advocacy for Neoadjuvant Therapy

While there are guidelines in place in Canada for which therapy to use, availability of treatment can differ based on where you live or if it is not approved or funded for your type/stage of breast cancer. If you find yourself needing access to neoadjuvant therapy, there are a few ways to advocate for it. Before taking these steps, it is important to first discuss with your healthcare team to confirm that neoadjuvant therapy would be beneficial to you, since it may in fact not be required.

#### **Contact your Provincial MPP/MLA**

Depending on where you live, you can reach out to your MPP (Member of Provincial Parliament) or MLA (Member of Legislative Assembly) and detail your situation about not being able to access neoadjuvant therapy due to eligibility or funding criteria. This is also a way to explore whether policy changes need to be made to ensure that other breast cancer patients who may need access to neoadjuvant therapies can do so. You can find the contact information for your elected official using your home address. In your correspondence to them, be sure to include what the importance of accessing neoadjuvant therapies would mean to you and other breast cancer patients.

### **Contact your Ministry of Health**

The Ministry of Health where you live is responsible for setting healthcare policies in your province. You can reach out to them to voice your concerns regarding access to neoadjuvant therapy. If you reach out to your MPP/ MLA, they can also reach out to your provincial Ministry of Health on your behalf. You can find the contact information for your Ministry of Health here. In your correspondence to them, be sure to include what the importance of having access to neoadjuvant therapy would mean to you. You can also contact the Minister of Health of Canada and voice your concerns about not being able to access neoadjuvant therapy and why it is important for yourself and other breast cancer patients to be able to access it. The contact information for the Minister of Health of Canada is:

Minister of Health House of Commons Ottawa, Ontario K1A 0A6 hcminister.ministresc@canada.ca

### Write to the Canadian Agency for Drugs and Technologies in Health

The Canadian Agency for Drugs and Technologies in Health (CADTH) is responsible for providing Canada's healthcare decision-makers with objective evidence to help make informed decisions about the optimal use of drugs and medical devices in our health care system. Provincial health authorities rely on CADTH's expertise and recommendations to make decisions about which cancer drugs to publicly reimburse on their formularies. You can write to the head of CADTH to voice your concerns about accessing neoadjuvant therapies.

The contact for the President and CEO of CADTH is:

Ms.Suzanne McGurn President and CEO The Canadian Agency for Drugs and Technologies in Health 865 Carling Ave., Suite 600 Ottawa, ON Canada K1S 5S8