



BREAST CANCER

WHAT HAPPENS AFTER SURGERY?

Contents:

- 1 Planning further treatment
- 2 Medical management of breast cancer
- 3 Support and follow up
- 4 Questions to ask your surgeon or oncologist

1 Planning further treatment

The idea of further (adjuvant) treatment after breast surgery can be frightening and sometimes quite confusing. If there is evidence that the cancer has worrying features or has spread to the lymph nodes, you may benefit from having further treatment to reduce the risk of the cancer returning. This treatment may be local (to the area where the cancer has been removed) or systemic (full body), or both.

Your treatment plan will be discussed with you after the surgical specimen has been examined in the laboratory and a report has been sent to your doctor.

Breast cancer is a complex disease and it's important to understand that your treatment plan is specific to your type, grade and stage of breast cancer.



Planning further treatment... continued

After surgery, your laboratory report will contain the following information:

- ❖ The type of breast cancer - whether it is invasive/ infiltrating (has spread outside the breast ducts into normal breast tissue) or in- situ (still contained within the breast ducts). Invasive cancer will be further classified e.g. ductal, lobular or other special types. In-situ disease is called ductal carcinoma in-situ or DCIS.
- ❖ The size of the cancer.
- ❖ The number of tumours in the breast.
- ❖ The Grade of the cancer (how fast the cells are dividing) usually expressed as Grade 1 (low grade), Grade 2 (intermediate) or Grade 3 (high grade).
- ❖ Whether there are cancer cells in any of the lymph nodes.
- ❖ ER & PR (oestrogen and progesterone) receptor status. This is described as either positive or negative and indicates whether the cancer cells respond to your female hormones.
- ❖ HER2 receptor status (positive or negative) – this determines the need for treatment with Herceptin.
- ❖ Whether the surgical margins are clear of cancer cells. If the margins are not clear, further surgery may be required to completely remove the tumour.

Taking all of this information into account, you will be advised if there is a need for more local treatment (e.g. further surgery and/or radiation therapy) or whole body treatment such as chemotherapy, hormone-blocking therapy or targeted biological therapy such as Herceptin. These decisions are made in consultation with you /your family and specialists.

Sometimes, further imaging such as CT or bone scan may be used to stage the disease. This shows whether the cancer has spread beyond the breast.

A more recent tool in the medical management of breast cancer is gene-expression profiling. The tests, for example Oncotype DX® and MammaPrint® can help predict the risk of a breast cancer coming back after initial treatments.

The results may help doctors decide if further treatment might be needed (or avoided).

These tests are not currently government funded in New Zealand nor covered by medical insurance. You could discuss with your doctors whether or not these tests might be useful for you.

2

Medical management of breast cancer

Chemotherapy

Chemotherapy is the use of anticancer drugs, usually given by intravenous infusion. The drugs are called 'cytotoxic' (toxic to cells) and travel in the bloodstream throughout the body. *The aim of chemotherapy is to kill any cancer cells that may have spread beyond the breast.*

What to expect

The most common side effects include temporary hair loss, fatigue, nausea, lowering of immunity. Many side effects can be controlled, making treatment easier to cope with. Your medical oncologist will discuss any expected side effects with you before you start treatment. Ask your specialist team for help if the side effects are difficult to cope with, or if you are feeling uncomfortable or unwell.

Your specialist will discuss any expected side effects before you start treatment.

Types of chemotherapy

Various chemotherapy drugs can be used depending on the type of breast cancer, results of tests, your age and your general state of health. These are some examples of the combinations of chemotherapy drugs which may be used. Combinations offered may differ from centre to centre around NZ. Ask your oncologist why a particular combination has been recommended for you.

Medical management of breast cancer... continued

- ❖ **TC:** Taxotere (docetaxel) and cyclophosphamide
- ❖ **AC:** adriamycin and cyclophosphamide
- ❖ **FEC:** 5-fluorouracil (5-FU), epirubicin, cyclophosphamide
- ❖ **CMF:** cyclophosphamide, methotrexate, 5-fluorouracil

There are also some sequential regimens, such as:

- ❖ **FEC/D:** 5-fluorouracil, epirubicin and cyclophosphamide followed by docetaxel
- ❖ **AC-P:** adriamycin and cyclophosphamide followed by weekly paclitaxel.

Herceptin (trastuzumab) is given in combination with chemotherapy for HER2 positive disease. Chemotherapy treatment cycles are usually three weeks apart, commonly with 4-6 cycles. This means chemotherapy treatment can last from 3-5 months.

Herceptin is given over one year.

The length of treatment will depend on which regimen your oncologist recommends. It is important to find a balance between effectiveness of treatment and toxicity.

Radiation therapy (Radiotherapy)

The use of radiation (x-rays or electrons) to treat breast cancer. Radiation therapy is a localised treatment to the breast. Sometimes the adjacent lymph node region is also treated. *The aim of radiation therapy is to kill cancer cells, reducing the chance of the cancer returning.*

External beam radiation therapy (EBRT)

The patient lies on the treatment bed and the x-ray machine directs beams of x-rays to the whole breast +/- the lymph node region. This is called external beam radiation therapy. The treatment is tailored to the individual with daily treatments, Monday to Friday (excluding weekends) over a period of 3 to 6 weeks. Between 15 and 30 daily treatments are required. The daily treatment time is usually very short and you can expect to be at the hospital for approximately 30 minutes each day.

Intra-operative radiotherapy (IORT) with IntraBeam®

A subgroup of women with breast cancer may be eligible for a new method of administering breast radiation therapy. This is called intraoperative radiation therapy (IORT) and is given by a special machine called IntraBeam®. This radiation therapy is a single treatment which is given at the same time as the breast surgery. The cancer is removed, then the IntraBeam machine delivers low energy x-rays directly into the area where the cancer was situated, rather than to the whole breast. Approximately 20% of patients treated with IORT will still require external beam radiation therapy in addition to the IORT. This method is not suitable for all cases and is not yet widely available in New Zealand. However you may wish to discuss this with your surgeon.

Possible side effects

Your Radiation Oncologist will discuss the risks and benefits plus any expected side effects before you start treatment.

Hints for treatment

Wear loose, light clothing over the area being treated to reduce skin irritation. Look after the treated skin area. Do not use hot water, talcum powder or perfumes on the treated area. Avoid sunburn. You will be given detailed instructions about skin care before starting a course of radiation therapy.

“Radiation therapy is a localised treatment to the breast. Sometimes the adjacent lymph node region is also treated. The aim of radiation therapy is to kill cancer cells, reducing the chance of the cancer returning.”

Medical management of breast cancer... continued

Hormone-blocking therapy

Hormones are a natural part of the body's chemistry. Some breast cancers respond to the female hormones oestrogen and progesterone. These are called hormone receptor positive cancers and oestrogen can cause them to grow. Treatment involves preventing the release of these hormones or blocking the receptors so that the cancer cells are starved of oestrogen. *The aim of hormone-blocking therapy is to reduce the risk of the cancer recurring in the future.*

Tamoxifen

Tamoxifen is a commonly used hormone-blocking drug which can be prescribed for both pre- and post-menopausal women. It is also called an anti-oestrogen drug because it works by attaching to the hormone receptors on cancer cells so that oestrogen cannot feed them. It reduces the risk of the cancer returning and also reduces the risk of a second cancer developing in the other breast. Tamoxifen is taken daily for 5 years or longer. The benefits of this treatment have been shown to persist beyond the treatment period.

There is some evidence that certain antidepressants, such as Paroxetine and Fluoxetine may reduce the effectiveness of Tamoxifen. These are known as SSRIs (selective serotonin reuptake inhibitors). Make sure you tell your specialist if you are taking these medications so that a safer alternative may be prescribed if needed.

Tamoxifen may cause a reduction in bone mineral density in pre-menopausal women so it's important to do regular weight-bearing exercise and ensure a good intake of dietary calcium and Vitamin D while on the medication. Tamoxifen has a protective effect on bone density in post-menopausal women.

Aromatase inhibitors

These drugs (Anastrozole, Letrozole and Exemestane) are also used to treat breast cancers that rely on oestrogen for growth. They work by preventing the aromatase enzyme from changing other hormones into oestrogen.

Aromatase inhibitors are suitable only for post-menopausal women. They may be prescribed as initial therapy or after completing 2-3 or sometimes 5 years of Tamoxifen.

Aromatase inhibitors can cause a reduction in bone mineral density over time so a DEXA scan may be arranged to assess your bone density if these drugs are prescribed for you. Your oncologist will advise which class of drugs is most appropriate for you and discuss possible side effects. All of these hormone blocking medications are taken by mouth.

Zoladex

Zoladex (Goserelin) is a drug given by 4-weekly injection which temporarily stops the ovaries producing oestrogen. This can help reduce the growth of hormone-sensitive cancers. It may be used for women with hormone-sensitive early breast cancer and also in more advanced disease. Zoladex may cause a decrease in bone density. This usually recovers after treatment has stopped. Women may experience a return of their menstrual cycle after stopping the treatment.

Surgical removal of the ovaries (oophorectomy)

Surgical removal of the ovaries is another option that may be recommended in some cases. This is often done for women with known BRCA1 or BRCA2 gene mutations to reduce their ovarian cancer risk.

Targeted biological therapy

The most common targeted therapy for early breast cancer is a biological agent called Herceptin (trastuzumab). Herceptin is only used in women with HER2-positive cancer (15-20% of breast cancers) and works by attaching to HER2 receptors (proteins) on the surface of breast cancer cells. The aim of Herceptin treatment is to stop the cancer cells dividing and growing and allows the immune system to kill cancer cells.

Herceptin may be an option for part of your treatment (given as an infusion) and a 12 month course is funded by the NZ government. It is given together with chemotherapy.

Treatment summary

| Treatment | What is it |
|------------------------------------|--|
| Chemotherapy | Anti cancer drugs to slow the growth or kill remaining cancer cells which may have spread beyond the breast. |
| Radiation therapy | Radiation targeting the breast to kill cancer cells. |
| Hormone-blocking therapy | Drugs which block or prevent production of cancer-promoting hormones which occur naturally in your body. |
| Targeted biological therapy | Herceptin is used to treat HER2 positive breast cancer. A 12 month course of Herceptin is government funded in NZ. |

An informative booklet "*Learning all about HER2-positive Early Breast Cancer*" is produced by Roche Products (NZ) Ltd and may be available from your breast nurse or the New Zealand Breast Cancer Foundation. You can also download it from www.myjourney.co.nz

Frequency

Possible side effects

Treatment cycles usually 3 weeks apart. 4-6 cycles are usually given. Treatment can last from 3-5 months.

Temporary hair loss, tiredness, lowering of immunity and nausea but many side effects can be controlled.

Short, painless daily treatments for 3-6 weeks excluding weekends.

Discuss with your specialist.

Differs by drug – by mouth or injection. Discuss with your specialist.

Discuss with your specialist as this varies by drug treatment.

By infusion every 3 weeks.

Discuss with your specialist.

FIND OUT MORE!

Further information on medical treatment of breast cancer is provided at www.nzbcf.org.nz/breastcancer/treatment

3 Support and follow up

While undergoing treatment you may require support at different times. It is important to surround yourself with people who can offer you support during times when you are feeling 'down' or 'not coping', or when you need to talk to someone.

These people could be counsellors, medical professionals, family members, friends, work colleagues or your minister. For further help, the Cancer Society of New Zealand offers support and counselling services, as do a number of survivor group organisations. Ask your Breastcare Nurse for information.

- ❖ Check out the Pink Pages directory on the New Zealand Breast Cancer Foundation website to find your nearest support services and products: www.nzbcf.org.nz or phone our advice line on **0800 BCNURSE (0800 226 8773)**
- ❖ Contact the Cancer Society on **0800 226 237**

Follow up appointments will be arranged by your specialist team until you are advised that your care can be transferred to your GP. Mammograms will be required annually as part of your follow up.

“It is important to surround yourself with people who can offer you support during times when you are feeling 'down' or 'not coping', or when you need to talk to someone.”

4

Questions to ask your surgeon or oncologist

- ❖ What do my pathology results mean?
- ❖ How extensive is my cancer?
- ❖ How long will the treatment take and how much will it cost?
- ❖ Are there any new treatments or clinical trials that I should consider?
- ❖ Who will be following my case and managing my overall care?
- ❖ Who do I phone if I am having bad side effects or feeling particularly unwell?
- ❖ Is there any benefit I can receive to help me pay for associated treatment costs?
- ❖ Can I have children after the treatment?
- ❖ Can I still work, drive, and /or exercise?
- ❖ What support services are available to me?

NOTES

**Our mission is to prevent
New Zealanders developing and
dying of breast cancer.**

The New Zealand Breast Cancer Foundation is a charitable trust formed in 1994 to educate all New Zealanders on the life-saving benefits of early detection and the importance of screening mammograms.

Its focus includes:

- ❖ New Zealand-wide breast awareness and education programmes for the public and health professionals.
- ❖ Funding New Zealand breast cancer research, including breast cancer patient registers, which record detailed information about diagnosis, treatment and outcomes.
- ❖ Providing scholarships and grants for radiation therapy students, mammography students and breastcare nurses.
- ❖ Supporting and funding programmes which improve the quality of life of New Zealanders with breast cancer. These include: exercise and rehabilitation programmes, dragon boating teams, and Sweet Louise, which supports women living with secondary breast cancer.

More information on these programmes is provided on our website www.nzbcf.org.nz/SUPPORT/CancerRehab or phone 0800 BC NURSE.

- ❖ Advocating for improved breast cancer care and treatment for all New Zealanders.



Can we help you further?

0800 BCNurse

Visit the New Zealand Breast Cancer Foundation's website. See our Pink Pages Directory for your nearest support services and products.
www.nzbcf.org.nz

Email your questions to breasthealth@nzbcf.org.nz or breastnurse@nzbcf.org.nz

Phone our breast cancer advice line **0800 BCNurse (0800 2268 773)**

Phone one of our National Educators **0800 902 732**

Phone the Cancer Society **0800 226 237**