



**Information for patients receiving
external beam radiation therapy
to the skin**

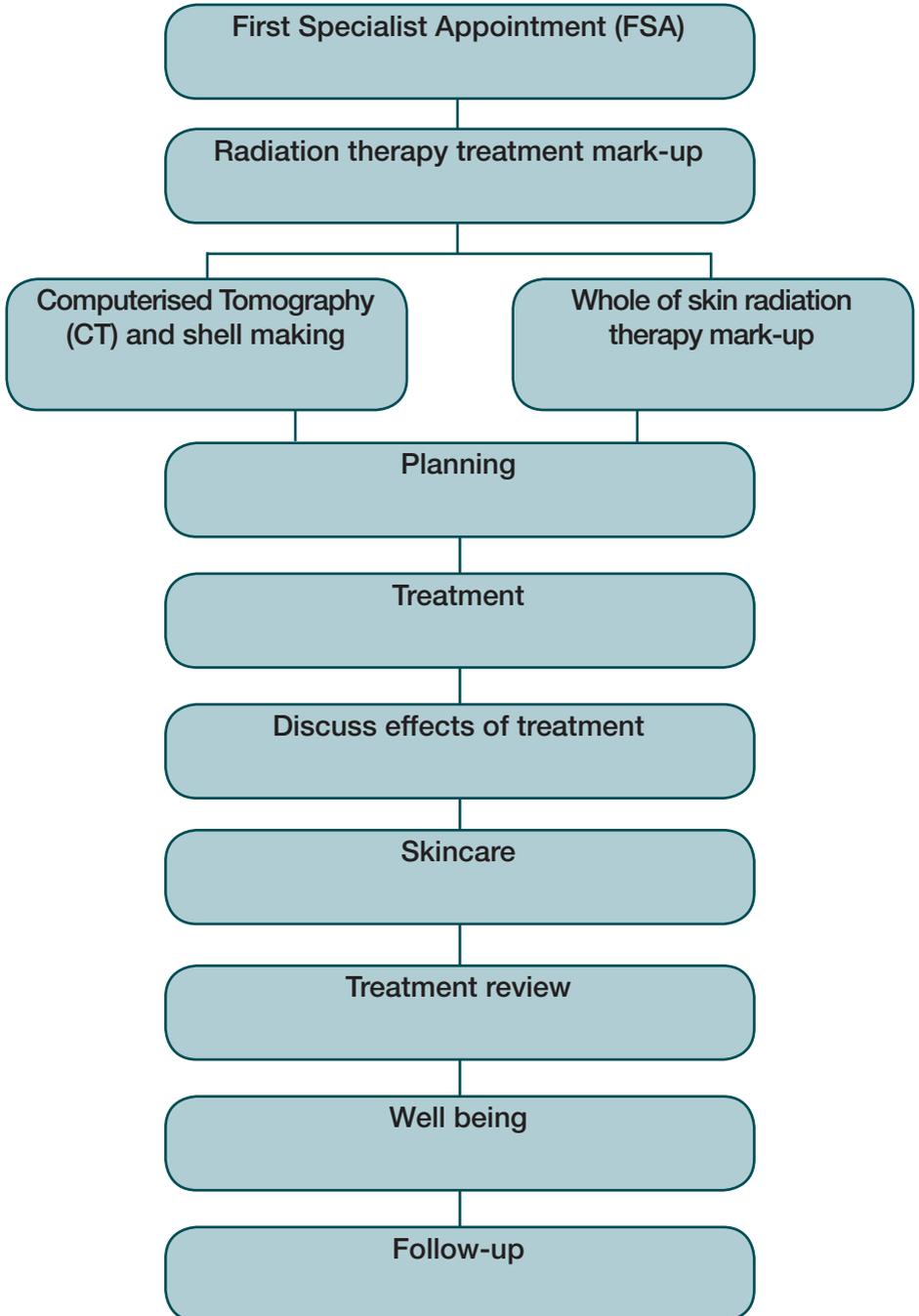


Waikato Regional Cancer Centre



Welcome to Waikato Regional Cancer Centre. The aim of this booklet is to provide information on the radiation therapy treatment procedure and to explain the journey from your first meeting with the radiation oncologist to the completion of your treatment.

Radiation Therapy



What is radiation therapy?

Radiation therapy is the use of high energy x-rays or electrons to damage the DNA (genetic code) in the cancer cells. Radiation therapy is planned to minimise any damage to the normal cells in the body. Special care is taken to limit this through the use of advanced planning techniques and treatment delivery methods.

Radiation therapy is delivered in small treatments called fractions. This allows the normal cells to recover between each daily treatment. Treatment fractions vary depending on an individual's needs. This can depend on the type of cancer, staging and intent of the treatment. Radiation therapy for skin cancer is usually delivered over a two to four week period, but your doctor will explain what is recommended for you.

First Specialist Appointment (FSA)

Your doctor (radiation oncologist or registrar) will explain the radiation therapy procedure to you. Your diagnosis, treatment options and potential side effects of treatment will be discussed. If you consent to having radiation therapy treatment, a signature will be obtained at this stage. For the potential side effects please refer to section 'Effects of Treatment' on pages 5 and 6 in this brochure.

Depending on the area of skin that needs to be treated some of the following procedures may be required:

Radiation therapy treatment mark-up

Depending on the area that needs to be treated a clinical mark-up may be needed to define the treatment area. Your radiation oncologist or their registrar will draw on your skin, the area to be treated. Measurements, skin tracings and photographs of the area may also be taken to reproduce the treatment site when you come for treatment.

Computerised Tomography (CT planning scan) and shell making



A small number of patients may require a shell (mask) to be made. If this is required your radiation oncologist/registrar will explain this in more detail.

Some patients may require a CT scan. This can provide us with extra information that is necessary to plan your radiation therapy treatment. If a CT scan is performed, you will be set up in a comfortable position, and if a shell was made this will be placed on you for the scan. Sometimes a positioning vac bag (similar to a bean bag) will be made.

After the scan, photographs will be taken of your position and measurements recorded to assist in the daily set-up for treatment.

Whole of skin radiation therapy mark-up

If you are having radiation therapy treatment to all of your skin you will be required to have measurements and photographs obtained while you are seated in a specially designed perspex box. This will require a team of staff to be present including your radiation oncologist and/or their registrar, medical physicists and radiation therapists.

Please inform a member of staff if there is any possibility that you could be pregnant.

Planning

An individualised radiation therapy plan will be prepared for you. We calculate the best method and beam arrangement for the dose of radiation to be delivered, while at the same time avoiding as much normal tissue as possible. Time is required for the planning calculations and checks to be done. Treatment is started as soon as possible following the completion of this process.

Treatment – external radiation therapy



At treatment you will be set-up in the same position you were in at your planning or mark-up appointment. Your daily treatment requires specific positioning, so it is important to relax and allow the radiation therapists to move you as necessary. Once you are positioned correctly you will be required to keep still until the treatment is completed.

The radiation therapists must leave the room during treatment; however, they will monitor you on cameras from outside the room. There is also an intercom system. If you were to need assistance you can call out.

On your first day (if required) and sometimes on subsequent days, imaging devices on the treatment machine may be used to ensure you are in the right position before the treatment can be delivered. The direction of the beam is set by moving the machine and the couch, on which you will be resting, to the correct position. At times during your

treatment we may take images and occasionally adjustments to the couch will be made before continuing with the treatment.

The time you spend in the department can vary for each individual depending on the area being treated and the treatment preparation that you may be required to undertake. Most patients will spend approximately 10 mins in the treatment room but the actual prescribed daily dose of radiation is only a few minutes. In some cases, patients will be required to spend 30-40 mins in the treatment room. During treatment you will not see or feel anything. You will just hear a buzzing sound and that will let you know that the machine is delivering the treatment.

Waikato Regional Cancer Centre is a teaching hospital and at times we have students in our department. If you don't wish to have these students involved with your treatment, please advise a member of staff.

For more information please refer to:

<http://www.waikatodhb.health.nz/radiationoncology/>

Effects of treatment

At your first treatment a radiation therapist will discuss your treatment plan, including potential side effects, skin care and how long you will be in the department for each day. This is a chance for you to ask any questions. It might be a good idea to write these down in the back of this book.

Radiation therapy is a localised treatment, so most side effects relate to the body site being treated. Everyone is affected differently by radiation therapy and the severity of side effects varies from person to person. If you experience any of the following side effects, please notify a member of staff.

Potential side effects include, but are not limited to:

Early side effects (can occur days to weeks after starting radiation therapy treatment)	Late side effects (may occur months or years after radiation therapy treatment)
<ul style="list-style-type: none"> • Fatigue (tiredness) • Skin changes (red, dry, itchy, moist, blistering) • Hair loss in the treatment area • If treatment is near the eye - redness, discomfort, watering of the eye • If treatment is near the ear - blockage of the ear, discomfort and temporary reduced hearing • If treatment is near the mouth - inflammation of the lining of the mouth/throat (mucositis), ulcers, thickening and reduced saliva, altered taste and appetite 	<ul style="list-style-type: none"> • Skin changes (darker or lighter colour, thinning of skin (atrophy), small blood vessels visible under the skin (telangiectasia) • Firmness under the skin (subcutaneous fibrosis or induration) • Problems with healing in the bone or soft tissues (radio necrosis) • If treatment is near the eye - clouding of the lens of the eye (cataracts), damage or tear gland - leading to dryness and irritation • If treatment near the mouth - dryness of the mouth (xerostomia)
<p>Risk of:</p> <ul style="list-style-type: none"> • If treatment is near the eye - reduced vision • If treatment is near the ear - permanent hearing damage • If treatment is near the mouth - permanent altered taste, persistent ulcers • Damage to the blood vessels in the neck • Damage to major nerves or the spinal cord 	

There is an extremely small risk of developing a second cancer many years after radiation therapy treatment, and your doctor will explain this risk to you.

The peak of any reactions/side effects you may experience will occur approximately 7-14 days after the completion of your radiation treatment. This is due to the cumulative nature of the treatment.

If you have any concerns or experience any side effects, please speak to the radiation therapists and where necessary they can organise for a nurse or doctor to see you.

Skin care

Skin reaction of the normal skin in the **treatment area** is common, but the extent of the reaction will vary on an individual basis.

You may notice the following changes:

- your skin gradually becomes pinker or darker, depending on your skin colour
- skin may feel dry, tight and/or sore
- a rash may also appear and feel itchy
- Sometimes the skin may blister or peel.

Skin reactions may appear at any time but usually begin seven to ten days after starting your treatment, and can continue for two to three weeks after treatment has been completed.

What can affect my skin reaction?

- Receiving treatment to areas where there are skin folds.
- Having chemotherapy recently or during your radiation therapy.
- Smoking can increase your skin reaction. If you need help to stop smoking, please ask a radiation therapist for further information.

The following advice may help skin reactions while receiving radiation therapy. This advice only applies to the area being treated:

- Wash the area regularly with a mild, unscented soap and pat (not rub) the area dry with a soft, natural fibre towel.

- Shower or bath in warm water, not hot or cold.
- Do not apply heating or cooling devices in the treatment area. This includes wheat bags, hot water bottles, hairdryers or ice packs.
- Deodorant can be used if the skin is still intact i.e. not broken.
- Wear loose fitting natural fibre clothing next to the skin. Avoid wearing underwire bras. Try to minimise friction within the treatment area.
- Avoid shaving or waxing skin in the treatment area. If shaving is required, use an electric shaver. However, at the onset of a skin reaction, it is recommended that you avoid shaving/waxing the treated area entirely. Do not apply any cream/ointments to the treated area that has not been advised by your radiation therapy team including after-shave, perfume, make-up or elastoplast's.
- If you like to swim, you may continue to do so. We do not recommend swimming in chlorinated pools or rivers/other potentially polluted fresh water if you develop areas of broken skin. You may swim in salt water throughout treatment.
- Keep the area covered when out in the sun. We suggest wearing a wide brimmed hat or protective clothing while you are outside. **Do not** apply sunscreen to the treatment area **while you are on treatment**. Once the treatment has been completed and any skin reaction resolved, you should use a SPF30 or higher on the recently treated area.

What can I use on my skin?

Cetomacrogol cream

This will be prescribed by your radiation oncologist on your first day of treatment.

This is a moisturising cream that will keep your skin hydrated and may help reduce any itchiness you may experience during treatment.



Sorbolene cream with 10% Glycerin

Available at your local pharmacy (no prescription required).

This is an effective moisturiser that has retaining qualities, and has a mild anti-pruritic which acts as a soothing agent to reduce itching.

Calendula cream

Available at your local pharmacy (no prescription required).

This cream is derived from the marigold plant and some research indicates it is beneficial for itchiness and pain associated with radiation-induced skin reactions. However, the cream must be paraben free and with no additional fragrances.

If the skin reaction progresses:

Hydrocortisone cream

Available on prescription a doctor.

This may be used if the skin becomes itchy and/or irritated. It should always be used sparingly as excessive use may thin the skin. Continue with moisturiser as advised.

Manuka honey

Available from the radiation oncology nurses.

If the radiation reaction causes the skin to break down, Manuka honey may be recommended. Manuka honey is known for its antibacterial properties and can help avoid infection.

Silver Sulfadiazine cream

Available on prescription by a doctor.

This is used on broken skin once the treatment has been completed. It has antibacterial properties and is used to avoid infection.

Treatment review

A scheduled routine check with your oncologist or registrar will be booked in to occur a few times while you are on treatment. Clinic days and times are specific for each oncologist. We try our best to coordinate these times with your treatment time, but it is not always possible. hydrated and may help reduce any itchiness you may experience during treatment.

Well being

Mental wellness

The diagnosis of cancer and undergoing treatment can add additional stress to your life. Anxiety and depression are common among patients during and following cancer treatment. It is perfectly normal to feel emotional about the journey you are going through and everyone deals with the situation differently. You may find it helpful to talk to family and friends about how you are feeling or if you would like outside professional and psychosocial support please mention this to a radiation therapist.

Diet and weight

It is recommended that you have a well-balanced diet. It is important that you remain the same body size while receiving radiation therapy treatment. Significant weight loss or gain can influence treatment accuracy and may result in your treatment needing re-planning. You may be weighed throughout your treatment to ensure your weight remains stable and a referral to a dietician may be made for additional advice if necessary.

It is very important that you keep up your fluid intake during your radiation treatment. We recommend six to eight glasses of water per day.

Hair loss/wigs

Radiation therapy can affect the hair follicles within the treatment area, sometimes causing hair loss if a certain dose is reached. This hair loss can either be temporary, (hair will grow back after treatment) or at times it can be permanent. Your radiation oncologist will discuss this with you and can provide referrals for hats, scarfs and wigs if required. There are several providers with further information available.

Follow-up

After your treatment has been completed, a follow up appointment will be arranged with your radiation oncologist or their registrar. The timing of this will depend on the area that you are having treated and what side effects you may have experienced during treatment. If you have any questions or concerns between the end of your radiotherapy treatment and this follow up appointment, you can contact your GP or one of the numbers below.

Useful numbers

- Waikato Hospital switchboard 07 839 8899
 - Blue Machine ext: 98073
 - Green Machine ext: 98249
 - Pink Machine ext: 98221
 - Yellow Machine ext: 96191
- Oncology Outpatient reception 07 839 8604
- The Cancer Society's Lions Lodge 07 834 2351
- Cancer Society - Hamilton 07 838 2027
- Cancer Society Information Helpline Staff 0800 226 237
- Wilson Parking 07 839 8901

For more information on Radiation Therapy please visit our website:

<https://www.waikatodhb.health.nz/about-us/a-z-of-services/cancer-services/radiation-oncology/>

<https://www.healthnavigator.org.nz/>

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