



## Information for patients receiving external beam radiation therapy

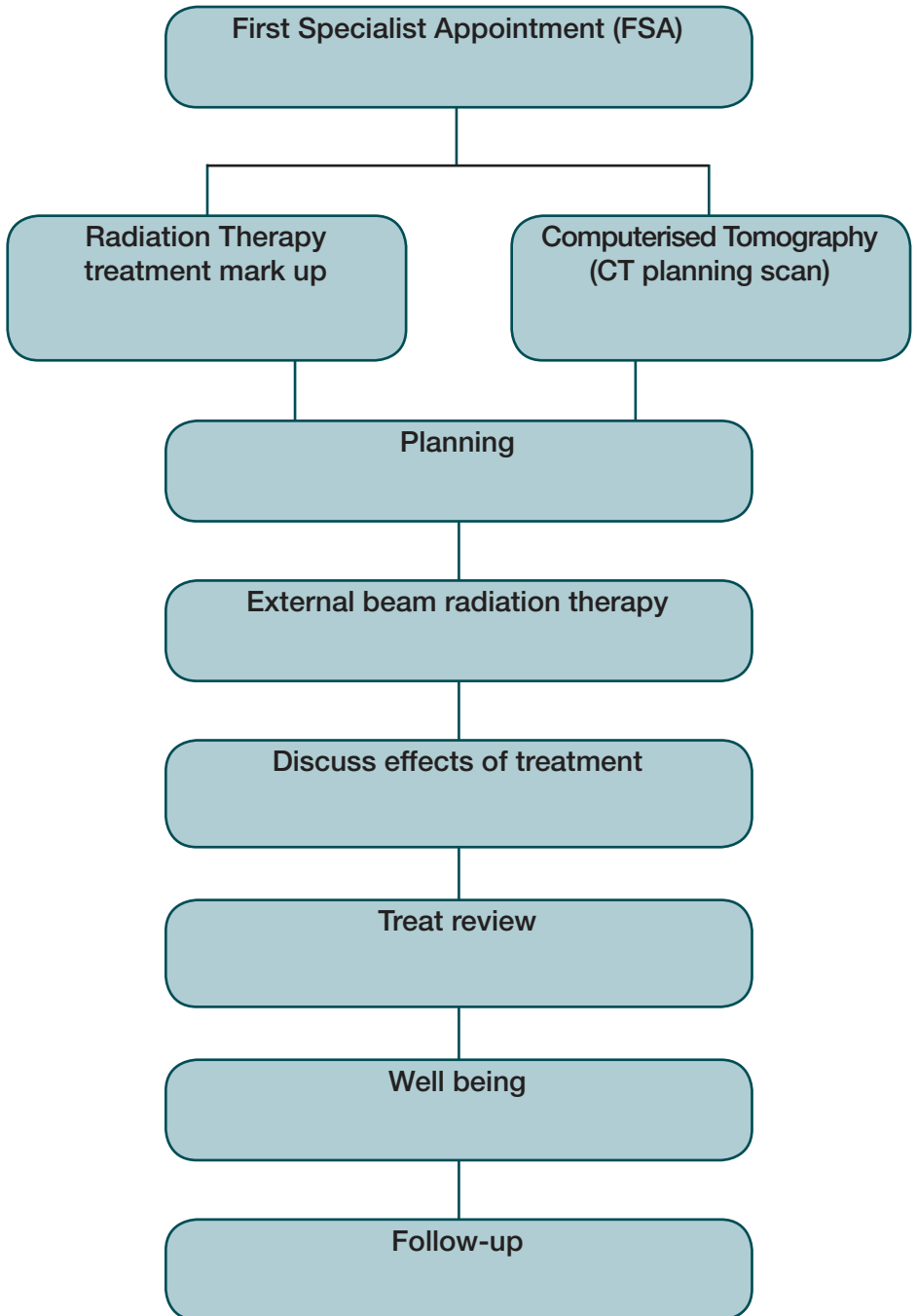


Waikato Regional Cancer Centre



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 of the normal cells in the body as possible.

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 needs. This can depend on the type of cancer, staging and intent of the treatment. Fractions can be delivered in one day or up to a few weeks.

## **First specialist appointment (FSA)**

Your doctor (radiation oncologist or their 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 to record your agreement will be obtained at this stage.

## **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 are also taken to reproduce the treatment site when you come for treatment.

## **Computerised Tomography (planning CT scan)**



Depending on the area that needs to be treated, a CT scan may be performed in order to deliver the treatment accurately and at the correct

dose. We need to be able to locate the area that needs to be treated in relation to the surrounding normal tissue in the body. You will be set up in a comfortable position that will be reproduced when you come for your treatment. This may include a vac bag being made for you (similar to a bean bag).

During the CT scan appointment small permanent tattoo marks will be given, photographs taken of your position and measurements recorded to assist in the daily set-up for treatment.

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

## **Planning**

Using the information obtained from the CT scan, an individual plan is produced. A 'target volume' is determined on the computer planning system. We calculate the best method and beam arrangement for the dose of radiation to be delivered to the 'target volume', 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 beam radiation therapy**



At treatment you will be set-up in the same position you were in at your mark-up appointment or planning CT scan. Your 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.

Imaging devices 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 bed 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. Depending on your beam arrangement, you will spend approximately 20 minutes in the treatment room, but the actual prescribed daily dose of radiation is only a few minutes. 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 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 the time of starting your 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. 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 vary depending on the body site being treated. Everyone is affected differently by radiation therapy and the severity of side effects varies from person to person. Potential early side effects may include fatigue (tiredness) and skin reddening/irritation. These can occur days to weeks after

starting **radiation therapy** treatment. All other potential **early** and **late** side effects would have been discussed and documented on your consent form at the time of your first specialist appointment with your radiation oncologist or their registrar.

*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.

## **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. If you have any concerns before these appointment times please speak to the radiation therapists.

## **Wellbeing**

### **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 professional and psychosocial support please mention this to a radiation therapist.

### **Diet and weight**

It is recommended that you have a well-balanced diet. Adapt your diet to suit your needs and eat smaller meals more frequently. If at any time you are having difficulty eating or drinking, or you are suffering from a loss of appetite, please inform a member of the treatment team.

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

## **Follow-up**

At the completion of your treatment, an 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 radiation therapy treatment and this follow up appointment, you can contact your GP or one of the numbers on the next page.



## 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:

***<http://www.waikatodhb.health.nz/directory-of-our-services/waikato-hospital/radiation-oncology/>***

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



# Notes/questions

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