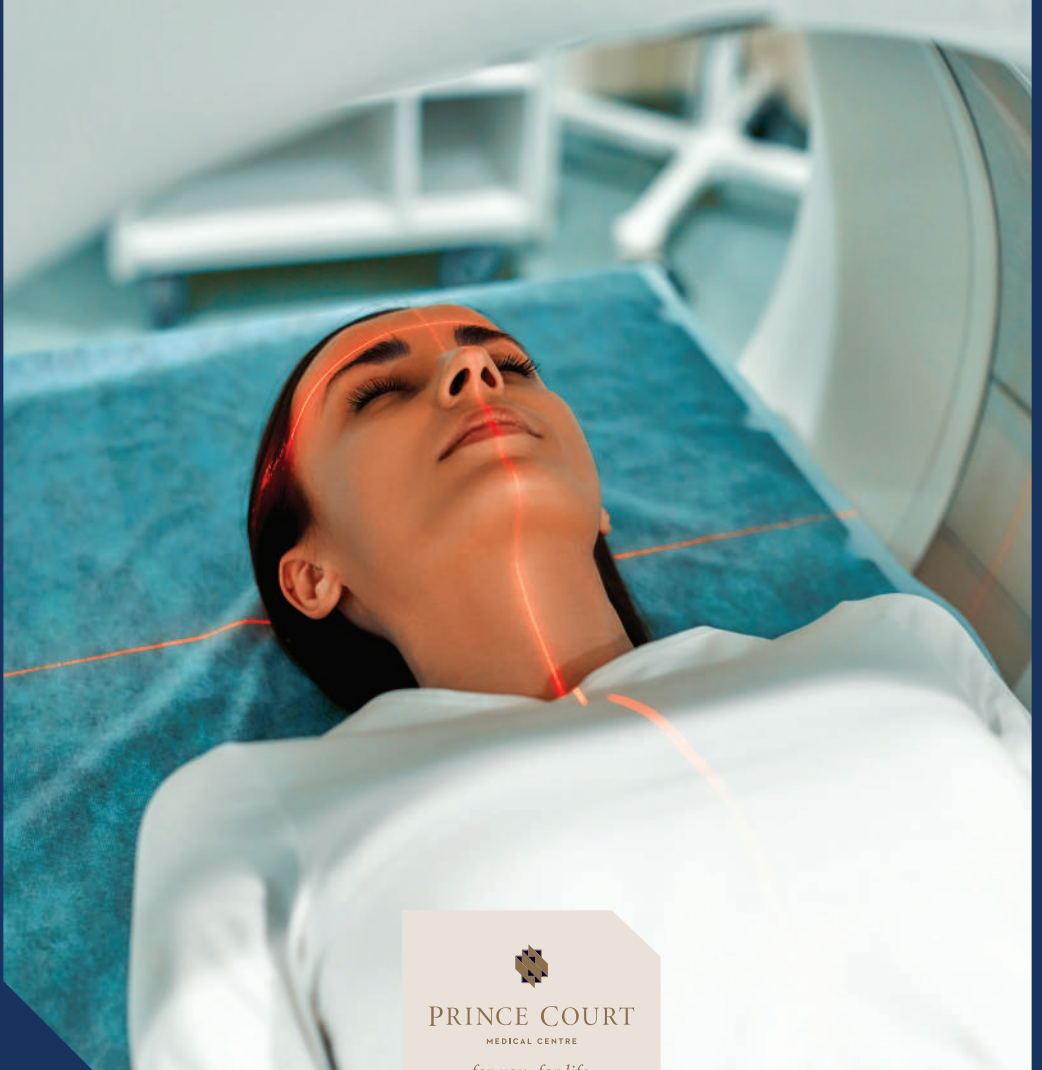


CANCER CENTRE

# Radiotherapy



PRINCE COURT  
MEDICAL CENTRE

*for you. for life.*



## **Dear Guest,**

Welcome to the Cancer Centre Services of Prince Court Medical Centre (PCMC). This pamphlet will provide you with a general introduction to what radiotherapy involves and familiarise yourself with the routines of the department.

## **About Us**

At Cancer Centre, we offer state-of-the-art radiotherapy equipment and technologies with precise planning and delivery of radiation treatment. You can be rest assured that the treatment you receive will be tailored to suit your special needs. A multidisciplinary approach to your care ensures that your ongoing health and wellbeing are of the highest importance.

This department is equipped with cutting edge technology such as

Linear Accelerator Elekta Versa HD (LINAC), High Dose Rate (HDR) Brachytherapy, CT-Simulator & Intra Operative Radiotherapy (IORT-Breast cancers) encompassed by Computerized Treatment Planning System that ensures extraordinary precision in treatment delivery. Our highly qualified teams of certified and registered professionals provide high quality of patient care in a compassionate environment that is patient and family focused.

## What is Radiotherapy/Radiation Therapy?

Radiotherapy is the use of exact, carefully measured doses of radiation to treat disease. The treatment is designed to destroy targeted cells, such as cancer cells while minimising radiation to surrounding healthy tissues so that they can recover from any radiation effects.

Radiation therapy is a localised treatment, generally affecting only the part of your body that is receiving the treatment. The machine used to deliver the radiation is called a Linear Accelerator.

While all machines look different, they all work in a similar way. These machines are just more powerful versions of the X-ray machines that are used to take images of chests and bones. Radiation treatment is not painful, although it is important for you to lie still while treatment is administered.

You should also know that as a person receiving radiation therapy, you are not a carrier of radioactivity that can be transmitted to others.







## What Will Happen?

A team of doctors including specialists, radiation oncologist, radiation therapists, nurses and medical physicists will care for you. The clinic nurse will attend to you in the consultation room where you will meet with the radiation oncologist. He or she will ask you some questions, gather information and explain about radiation therapy. Radiation Oncologist will examine you, discuss the potential benefits of radiation therapy and answer your questions. Once your

treatment has been decided, you will be given an appointment for your treatment preparation which is a Treatment Planning Session. The actual treatment usually starts within a few days to a week after the treatment planning session.

Your doctor may recommend chemotherapy as well as radiotherapy. You may have chemotherapy before, during and /or after radiotherapy. Chemotherapy can be given as tablets, capsules or directly into the bloodstream.

# Treatment Planning Session

Before any radiation treatment can commence, treatment planning is required to accurately determine the most appropriate way of treating your condition. To prepare for radiotherapy treatment a CT-Simulation has to be performed. That means a computed tomography will be performed to localise the area where the radiotherapy dose will be delivered.



To guarantee treatment accuracy, an immobilisation device and/or treatment accessories will be used to immobilise you during the treatment. The radiation therapist will prepare it prior to the CT-Simulation.

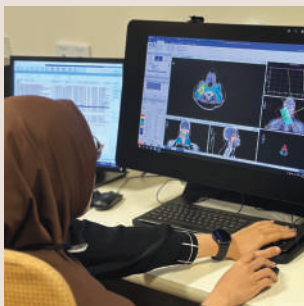
CT images are taken while you are wearing the immobilisation device. You can breathe normally even though the immobilisation mask covers your face. Sometimes you need to do an MRI/CT scan to help with treatment preparation.

Radiation Oncologist will work closely with Medical Physicist to generate the most precise plan for your treatment.



To determine the treatment area, some marks will be drawn on your body. These marks may be temporary or permanent (i.e. tattoo) and this will be discussed with you.

Finally, you will be given an appointment for your first treatment. In some cases, the treatment will commence on the same day.







## Treatment

On your first day of treatment, if you are an inpatient, a nurse/ward staff may accompany you to the department. As an outpatient, you would have visited the department as part of the preparation for treatment and you would have met some of the radiation therapists. Before the treatment begins, a member of the staff will explain what will happen during the treatment process. If you have any questions or worries, please feel free to discuss them with the radiation therapist. He or she will ask you to remove any clothing or jewellery including earrings if they are in the treatment area. During the treatment, you need to keep as still as possible.

The radiotherapy machines are quite big and if you have never seen one before you might feel anxious. There is no need to worry as the treatment is absolutely painless. The radiation therapists are there to support and reassure you.

Once you are in the treatment position, the radiation therapist will leave the room to deliver the treatment. They will be watching you carefully on a closed circuit television system (CCTV). There is also an intercom system to allow verbal communication.

# Treatment Delivery

## • ELEKTA VERSA HD (LINAC)

The treatment is normally given from different directions (angles) depending on your individual plan. It may only take a minute to actually deliver each treatment beam but the whole treatment session may take between 5 to 10 minutes. During treatment, you will see part of the treatment machine rotating while you are lying on the treatment table.

Versa HD is equipped to deliver intelligent, high-definition and high-speed modulated treatment to target that helps to overcome patient movement and discomfort besides minimising associated risks from non-therapeutic dose transmission.

Versa HD offers 4D image-guided radiotherapy (IGRT) to visualise, treat submillimeter and moving tumors (such as lung and prostate) with end-to-end accuracy while maintaining patients' comfortability with free breathing techniques.

Versa HD has fully integrated 6D robotic couch positioning system with six degrees of freedom to align challenging and multiple targets.

Armed with C-RAD, Versa HD made it possible to reach high precision patient positioning, intra-fraction motion management and respiratory gating through Surface Guide Radiotherapy (SGRT).





# Radiotherapy Process



## Patient Safety

Please be assured that you are safe and constantly monitored through the CCTV. If you become worried, anxious or do not feel comfortable during the treatment, just raise your hand and the radiation therapists will interrupt the treatment and attend to you immediately. Every treatment procedure is verified by the presence of another radiation therapist as well as the electronic medical record system.

## Scheduling

Before you leave, you will be given your treatment schedule that is fairly flexible and every attempt will be made to accommodate your scheduling within a reasonable period of time. In most cases, your treatment will be scheduled at the same time each day for the entire course of treatment.

The prescribed radiation dose and the number of days over which it is given vary between patients. Treatment is usually given from Monday to Friday. There is usually no radiotherapy given on public holidays, Saturdays and Sundays and this is taken into account when your treatment is planned.

It is very important that you do not miss your scheduled treatment days as this may make your treatment less effective. If you feel you are unable to attend for any reason, please contact the staff at **03-21600344**.

## Review

While you are having radiotherapy, you will meet the oncologist once a week. The purpose of this visit is to ensure that you are progressing well during the treatment and also to deal with any side-effects that may arise.

Please let the doctor know your problems so that you are taken care of accordingly. If you feel you need to see the doctor other than the scheduled time, please let the radiotherapy nurse or radiation therapist know and they will do the needful.

## Activity and Care during Treatment

You are encouraged to continue your normal activity that you are capable of doing without additional strain. You may continue to work if you are able to and if your doctor allows.

Treatment region/area should be protected from injury due to sun rays, rubbing, and pressure or irritation. Do not use electric heating, pads, hot water bottles, heat lamps or cold packs on treatment areas. You should only use medications approved by your doctor and avoid make up or jewellery (e.g. earrings or piercing) in the treatment areas. Short washing with clear running water without soap is

possible during radiotherapy. Please attempt to keep the areas as dry as possible after washing. You may dry your skin with a cold hairdryer or dab the skin with soft towel.

If you develop any side-effects, bring them to the attention of staff members immediately so that every attempt can be made to arrest/control these problems from the beginning.

## Follow Up

Your side-effects may last for some weeks after the treatment finishes so it is important to continue with your skincare routine and take all medications as prescribed by the doctor. Your first follow up will usually be four to six weeks after your last treatment.

The doctor will discuss with you the progress of your treatment and will arrange for you to have a follow-up scan and blood analysis.

Normally patients will have their first follow up scan two to three months after the end of radiotherapy treatment. Radiotherapy works slowly and it can take up to three months or more for treatment effects to settle down and any benefit to be seen.

You will then have regular follow-up visits with repeat scans arranged periodically according to doctor's order.

Call for appointments:  
**Oncology Centre**  
**03 2160 0344**



# PRINCE COURT

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*for you. for life.*



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in Healthcare Category  
awarded by The BrandLaureate



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• Clinical Service Initiative of the Year



• Orthopaedic Service Provider of the Year



International  
Hospital  
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2020



**Prince Court Medical Centre Sdn. Bhd.**

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