



Larofino - Kazimir Malevich

# RADIOTHERAPY

Patient information

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*Dear Patient, this leaflet was written to properly inform people like you, who have to perform a course of radiotherapy.*

*This leaflet doesn't replace the dialogue with healthcare staff, who will follow you along this pathway. Please use this leaflet as suggestion source to put questions and requests. We invite you to talk without any fear both to the doctor who visited you, and the nurses in the unit.*

## **What is radiotherapy for?**

Radiotherapy is the medical use of ionizing radiation to treat cancer. The part of the body where radiation is directed is called "irradiated area". Aim of radiation is to kill malignant cells in the "irradiated area". Radiotherapy prevents malignant cells from increasing in number. When these cells die, the body discharges them spontaneously. Healthy tissues near the irradiated organ could be hit by radiation. Unlike tumor cells, healthy tissues can repair the damage suffered.

There are two types of radiotherapy:

- in **external radiotherapy (External beam radiotherapy)** a medical device (Linear accelerator, Tomotherapy) produces radiation, which externally reaches the body area to be treated. In order to irradiate the tumor accurately, thus saving as many healthy tissues as possible, the most advanced precision techniques are employed, such as Tri-Dimensional Conformal Radiotherapy, Intensity-Modulated radiation Therapy (IMRT) and Image Guided Radiation Therapy (IGRT).
- In **internal radiotherapy (Brachytherapy)** a radiation source is placed temporarily inside an anatomic cavity, for instance vagina, uterus or rectum. This kind of radiotherapy works from the inside. Brachytherapy can be performed alone or after external radiotherapy

Radiation oncologists use radiation for different purposes:

- **Radical** radiotherapy is used to treat tumors without surgery. Sometimes radiotherapy can be used in combination with chemotherapy. Unlike radiotherapy and surgery, which have a well defined target, chemotherapy works all over the body and can increase radiotherapy effectiveness.

- *Preoperative radiotherapy* (so called *neoadjuvant* radiotherapy) can reduce tumor size before surgery. In some cases, it allows to perform surgery in case of previously inoperable tumors. This kind of radiotherapy can be associated to chemotherapy too.
- *Postoperative* radiotherapy is performed precautionarily, after tumor surgical excision. This kind of radiotherapy is used to reduce the risk of disease recurrence. Even in this case, it can be used in combination with chemotherapy.
- *Palliative* radiotherapy is used to reduce the tumor growth or to reduce symptoms such as pain and bleeding.

## Who works in a Radiotherapy Unit

In this Unit there are different professionals, working in close connection:

**Radiation oncologists:** they are physician specialized in radiation oncology. They make assessments and decide whether it is necessary for a patient to undergo radiotherapy. Moreover, they prepare a personalized treatment plan for each patient and follow the course of therapy for the whole treatment period.

**Medical physicists:** they have a degree in physics and a specialization in medical radiation. They cooperate with radiation therapists in drawing up a personalized treatment plan for each patient.

**Radiotherapy technicians:** they are Radiation Technicians; they take care of the necessary procedures for the treatment planning such as CT simulation. They are responsible for the administration of each session of the treatment that your physician has prepared for you.

**Nurses:** they are responsible for healthcare of each single patient.

**Healthcare operators:** they are professionals working together with both physicians and nurses, dealing both with healthcare and comfort.

**Secretarial staff:** they take care of the files in the unit and deal with patient admission and appointments for specialist visits.

## What does “course of radiotherapy” mean?

A “course of radiotherapy” is a series of radiotherapy sessions.

## What is necessary before starting a course of radiotherapy?

Before starting a “course of radiotherapy” it is necessary to perform a CT (*Computed Tomography*) Simulation. This tomography is performed on the body area which must be irradiated.

CT Simulation is not used to make a diagnosis, but to prepare a personalized plan of care. For this reason, you will not receive any medical report.

In some cases, a contrast material is injected into your vein. In this case, fasting is necessary before CT Simulation.

You will lie on the computed tomography bed, keeping the same position of the treatment sessions. A special immobilization system will allow you to keep the right position. At the end of the CT Simulation, we will make you small tattoos, like spots, which will be very important reference points for the technicians who are going to treat you.

After CT Simulation, you will be allowed to go home. We will phone to inform you about the beginning of your radiotherapy. In the meantime, radiation therapist and medical physicist will decide the best treatment plan for you.

**Attention:** if you have a pacemaker or a defibrillator device, please inform your radiation oncologist. As a matter of fact, in some cases it could be necessary to plan cardiac checkups, to be performed after and during radiotherapy.

## Is a special arrangement necessary before patient CT Simulation?

In some cases, according to the body area which will be radiated, you will have to follow some particular warnings. Don't worry, healthcare staff will give you whatever explanation you need.

## **How long does it take before beginning a course of radiotherapy?**

The answer is not the same for all patients. When to begin treatment, it depends on disease, on treatment schedule, *(if the patient underwent surgery or must undergo chemotherapy before radiotherapy)*; it depends also on the kind of radiotherapy is necessary to perform. Radiation oncologist will ensure waiting time will not impair the treatment effectiveness.

## **How will a course of radiotherapy occur?**

As mentioned above, a course of radiotherapy is made of a series of daily following sessions *(from Monday to Friday, except holidays)*.

A radiation oncologist will decide the cycle duration and the number of sessions according to the disease and the aim of treatment.

Radiotherapy is an outpatients treatment; with exception of very few cases, hospital admission is not necessary. On the first treatment session, you will be given a detailed memo, showing days and times of your treatment. Bear in mind there could be some delay, because of circumstances beyond our control. Sometimes, according to their poor condition, other patients could bypass you.

On the memo, you will find a telephone number you can call, asking for information or announcing something unexpected from your part.

When you come for therapy, please stay in the waiting room, we will show you during the first session. There is no need for you to tell us of your arrival.

## **How long does a radiotherapy session last?**

Only a few minutes. Overall, however, you could lie down on the treatment bed 20-30 minutes, because of the supervision required to assure the treatment accuracy

## **Is a special arrangement necessary before beginning a radiotherapy session?**

In some cases, you must follow particular warnings. Don't worry, healthcare staff will give you whatever explanation you need.

## **What happens during radiotherapy session?**

A radiotherapy technician will call you by name and invite you to enter the changing room, inside the **bunker**.

You will be given a gown to be worn for the whole radiotherapy course.

The technician will take you to bunker and will help you lie down on the bed in the right position. after making necessary control, technician will start treatment.

During therapy, you will be left alone in the room, but the technician will be able to follow you on the TV screen, to listen to your requests in case of need, and to talk to you. You will move only when you are allowed to.

At the end of the session, the radiotherapy technician will help you get out of bed. Then you can go back to the changing room, take off the gown, put your clothes and go home.

Take the gown home and remember to take it with you for the following sessions.

## **Is a radiotherapy session painful?**

During the radiotherapy session you won't experience any pain. It will be like X-ray.

## What happens during or after a course of radiotherapy?

Side effects depend on irradiated healthy tissues close to the tumor.

Radiotherapy side effects include symptoms appearing during and/or immediately after the end of a course of radiotherapy (*acute effects*) and effects developing months even years later (*late effects*). In very few cases radiotherapy can cause a new tumor, many years after radiation therapy.

In some cases, side effects are light or even absent and there is no need you change your daily habits.

Side effects appearance depends on various factors, for instance:

- Irradiated body area;
- Your treatment sensitiveness;
- Connection to other therapies

Healthcare personnel will give you more specific information according to your particular situation.

During your course of radiotherapy, a physician will always be available in assessing any possible side effect. If necessary, he will decide the best treatment to reduce side effects.

**Remember that:** every day a physician, a nurse or a radiotherapy technician will be at your disposal; they will answer your questions and you will be able to describe them your doubts and problems. Don't hesitate and don't think it is a problem for us to answer your questions. On the contrary, we ask you to inform us immediately if any change or/and symptom arises, so we can explain thoroughly and explain which warning or treatment you must follow.

## What is the behaviour to follow during a course of radiotherapy?

As far as your everyday life and working activity are concerned, there are no particular rules to be followed. If no particular physical problem bothers you, do what you want. In any case, you can ask the radiation oncologist, nurses or radiotherapy technicians in the unit.

In the following lines, we give you some general suggestions to experience radiotherapy as best you can.

To be done	Not to be done
Keep you skin clean with lukewarm and mild soap.	DO NOT take medicaments, nor vitamins or nutritional supplements, without radiation oncologist assent.
Have rest and an easy physical activity.	DO NOT expose your skin to sunshine rays on your radiated body area.
	DO NOT use creams or lotions on the radiated body area, without assent by radiation oncologist or nursing staff.
	DO NOT apply warm compresses on your radiated body area.

If necessary, healthcare staff will give you further and more precise information on your specific case.

## Is radiotherapy dangerous for people surrounding you?

No it isn't. The radiation we perform won't make you radioactive. You can approach anyone, including pregnant women and children.

## What is necessary after ending a course of radiotherapy?

At the end of your course of radiotherapy, radiation oncologist will visit you to assess the effects of the treatment. He will give you a report (*hospital discharge letter*) addressed to your General practitioner. In the discharge letter, there is a summary of your whole course of radiotherapy. In case you must take medicaments, the radiation oncologist will explain in the discharge letter:

- which medicaments you must take;

- how many medicaments you must take;
- when and how long it is necessary you take them.

After a course of radiotherapy, you have to undergo cyclical medical check ups (the so called “follow-up”). At the end of radiotherapy, radiation oncologist will explain your specific follow up.

## Contact persons

Secretarial Staff: tel. 0522 296261 - fax 0522 296781  
 Nurse Supervisor: tel. 0522 296068  
 Radiotherapy Technician Supervisor: tel. 0522 296068

Moreover we inform you that...

Inside Arcispedale Santa Maria Nuova – Healthcare Research Hospital - there is an Information Point for Patients and Relatives, connected to Medical Library; it is possible to ask for good quality and free information on health.

*How to reach us:*

Day Hospital – Oncology Unit: on Monday and Thursday from 9 a.m. to 12 a.m. – tel. 0522 296497.

Medical Library: from Monday to Friday, from 9 a.m to 3 p.m. – tel. 0522 295992.

Person in charge: Elena Cervi (Biblioteca Medica ASMN) – [infopazienti@asmn.re.it](mailto:infopazienti@asmn.re.it) <http://biblioteca.asmn.re.it/puntoinformativo>



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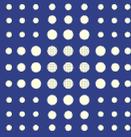
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