

OUTPATIENT METABOLIC RADIOTHERAPY WITH IODINE-131

General information

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Dear Mrs./Mr. _____,

This leaflet has been drawn up to provide you with some useful information on metabolic radiotherapy with Iodine-131 for treating some thyroid disorders. This therapy is performed on an outpatient basis. This means that we will give you a capsule of Iodine-131 to take and then you will be able to go home.

In this leaflet, you will find information on:

- what outpatient metabolic radiotherapy with iodine-131 is;
- what this therapy is for;
- what you have to do before, during and after the therapy;

The information contained in this leaflet does not replace direct consultation with healthcare professionals. Use this leaflet as a guide to your questions and requests.

You need to come for therapy on _____ at _____ in Nuclear Medicine.

What is outpatient metabolic radiotherapy with Iodine-131 and why is it performed?

Metabolic radiotherapy is a special type of therapy that involves the use of radioactive iodine, Iodine-131 (or ¹³¹I). With metabolic radiotherapy, it is possible to treat some thyroid disorders, such as Basedow/Graves disease, nodular goiter and toxic adenoma.

These diseases cause problems with the functioning of the thyroid.

The aim of this therapy is to make sure the thyroid starts to work normally again.

What does metabolic radiotherapy with Iodine-131 comprise?

The therapy simply consists of taking just 1 capsule of Iodine-131. The Iodine-131 capsule is a normal capsule, completely similar to normal tablets or pills. Iodine-131 is a radioactive substance. Therefore, after therapy you must follow some instructions to protect your safety and that of the people around you. You can find these instructions in the section "How should I behave after taking the Iodine-131 capsule?" on page 6.

Does this therapy cause any side effects or can it give me any problems?

This therapy does **not** normally cause any problems as it is performed with low doses of Iodine-131.

However, this therapy is **not** suitable when breastfeeding and must **not** be used during pregnancy.

If you are breastfeeding, after taking the Iodine-131 capsule you must stop breastfeeding immediately and definitively.

A suitable amount of time must have passed before starting a pregnancy. We recommend waiting at least 1 year after therapy. This indication is valid for both women and men.

Where should I go on the day of therapy?

On the day of therapy, you should go to Nuclear Medicine.

From the first floor (the floor where the bar is) follow access route 2. Nuclear Medicine is on floor 1.

How should I get ready on the day of therapy?

On the day of therapy, you must arrive **with an empty stomach - stop eating and drinking by midnight the night before therapy.**

You should also take any usual medication (*e.g. heart medication, blood pressure medication etc.*). In this case, you can take this medication with a small sip of water.

What should I bring on the day of therapy?

Remember to bring with you:

- Your paper health insurance card;
- Your tax code;
- An ID card;
- The requests made by the endocrinologist for:
 - The administration of metabolic radiotherapy;
 - Blood test results showing the thyroid hormone level FT3;
 - The urine test for pregnancy (for female patients of a child-bearing age). This test is necessary since you cannot have metabolic radiotherapy during pregnancy.

Who works in Nuclear Medicine?

In Nuclear Medicine, you will meet various professionals who work closely together:

Nurses: professionals who deal with all the aspects related to health assistance and education.

Nuclear Medicine Physicians: perform consultation with patients before administering therapy; prescribe any other therapies as required.

Medical Radiology Healthcare Technicians: assist the nuclear medicine physician during the administration of the Iodine-131 capsule to patients.

What happens on the day of therapy?

First of all, you need to go to reception (*our office*). The reception staff will record your arrival and will sit you down in the waiting room and inform a nurse of your arrival. Then a nurse will take a blood sample to test for your thyroid hormone level FT3. Only if you are a woman of childbearing age, you will be required to take a urine pregnancy test. In order to undergo therapy the test result must be negative. Then you will have a consultation with the nuclear physician. During this consultation, the physician:

- will ask you how long it has been since you ate or drank;
- will ask you when you stopped taking the anti-thyroid medication (e.g. Tapazole®) based on the instructions provided by your endocrinologist;
- will answer any questions and doubts you may have.

At this point, the medical radiology healthcare technician will give you the capsule of Iodine-131 to take in the presence of the physician. After taking the capsule, the physician will give you the report showing the therapy you were given. Now you can go home. If you need a medical certificate (e.g. for permission to take time off work), you can ask for one at the reception (office).

How should I behave after taking the Iodine-131 capsule?

After taking the capsule of Iodine-131, you must not eat or drink for 2 hours. This is necessary to ensure that your body can completely absorb the Iodine-131. After these 2 hours, you can have snack. This means that you can eat a small amount of food, not a complete meal. You can only have a complete meal at least 6 hours after the therapy.

For the 3-4 hours following the snack, we recommend eating and drinking as little as possible.

After the therapy, you can stop having the low-iodine diet that you started about 4 weeks ago.

As mentioned above, Iodine-131 is a radioactive substance that is eliminated through saliva, sweat, urine and faeces. Your radioactivity level after this therapy will, however, be such that it does not imply any significant irradiation risks. Therefore, as specified by European legislation on radiation protection, after taking this therapy you will be able to return home. However, to reduce irradiation and contamination and to eliminate the radioactivity more quickly, **follow the instructions provided below, also out of respect for the people around you.**

We recommend following these indications for at least 15 days. Please consider that, 15 days after taking the therapy, all the items and places with which you came into contact will no longer be radioactive. In fact, the radioactivity of Iodine-131 reduces (decays) gradually without leaving any residuals.

What to do	What to do to protect the safety of other people
Drink plenty of liquids (<i>at least 1 1/2 litres per day</i>).	Use disposable dishes (<i>plates, cups, cutlery</i>) and disposable napkins and tissues.
Wash your hands often.	Wash your personal items, clothes and underwear (<i>pants etc.</i>) used within the 15 days following therapy, separately. Iodine is a very soluble element and is completely removed by washing in water.
Try to urinate often.	If you use the same bathroom as other people, flush the toilet at least twice. If you use the same shower and/or bath as other people, rinse it with water only for a couple of minutes after using it.
Try to have a bowel movement at least once a day.	You can leave the house but try not to spend much time in crowded places.
	Limit contact with people of childbearing age (<i>and in particular children and pregnant women</i>).
	Avoid sleeping with your partner and avoid sexual intercourse.
	Avoid going to your workplace, especially if this involves close contact with other people.

Caution: as mentioned above, the radioactivity is also eliminated through urine and faeces. Therefore, you must take special care with all the materials that come into contact with your urine and faeces. For some of these materials, such as pants or other underwear, it is sufficient to wash them separately.

However, you must store in the basement or garage in closed plastic bags **for at least 7 days** all material to be thrown away or that cannot be washed (*e.g. dirty sanitary towels*). This is necessary in order to protect the environment. After these 7 days, you can dispose of these plastic bags in the waste containers for the collection of non-recyclable waste.

Is there anything else I should know about to protect my safety and that of other people?

According to the European guidelines and in association with Medical Physics the distance beyond which the risk of radiation is limited (*low*) has been identified as 3 metres. However, even the contact time is an element to bear in mind - the less time you spend near a radioactive person, the less radiation you receive.

For travelling by plane soon after therapy, the presence of radioactivity detectors in airports could cause unpleasant situations and require extra checks. At the discretion of the airport authorities you may not be allowed to board the plane. Therefore, we recommend asking the Nuclear Medicine Physician to issue certification of the therapy administration which you should carry with you.

How will my course of treatment proceed after metabolic radiotherapy with Iodine-131?

Your reference endocrinologist will plan how to proceed with your course of treatment.

The nurse that you spoke to today is called:

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