

## Scintigraphy of thyroid metastases with ablation therapy dose

The aim of radioiodine therapy is to destroy thyroid tissue or cancerous thyroid tissue with local radiotherapy.

The aim of the scintigraphy is to evaluate effectiveness of the radioiodine therapy, to examine the spread of the thyroid cancer, or to find local recurring cancerous foci, lymph nodes, or metastases, which collect radioiodine.

Radioiodine therapy will be administered first. Then, you will stay at a ward in isolation for 1–3 days.

Scintigraphy will be performed 7 days after the radioiodine therapy. The scintigraphy will take about an hour.

If you are pregnant or suspect that you are pregnant, call the number listed in these instructions. This therapy is usually not administered to people who are pregnant or breastfeeding.

### Preparing for the examination

**Avoid these for 2 weeks prior to the therapy:** products and food items that contain iodine, e.g., sushi, marine fish, excessive use of dairy products (over 5 decilitres per day), eggs and iodised salt, seaweed and multivitamin tablets, cough medicine, and antiseptics (e.g., Betadine).

**Prefer these food items for 2 weeks before therapy:** meat, potatoes, rice, pasta, porridge, vegetables, berries, and fruits.

On the day of the radioiodine therapy: Do not eat or drink for 2 hours before and for 2 hours after administering the treatment.

On the day of the scintigraphy: You may eat and drink as usual.

Your attending physician instructs you on any necessary breaks in your medication.

If you are to receive radioiodine therapy in Thyrogen stimulation (hormonal stimulation of the thyroid tissue), take your thyroid medication as usual. The Thyrogen stimulation will be given to you during the 2 days prior to the examination. A pregnancy test will be checked before Thyrogen stimulation.

Please contact the Nuclear Medicine Unit if you have had examinations with contrast agents during the previous six months.

### Radioiodine therapy

On the day of the therapy, arrive directly to ward K5 in the K hospital. A nurse will instruct you on practical matters related to the treatment. Then, a nurse from the Nuclear Medicine Unit will give you a capsule with radioiodine, which you will swallow with

water. Once you receive the capsule, your room will not be entered unless there is a compelling reason to do so.

The radioactive iodine will collect into the thyroid gland. In the thyroid, the iodine will destroy the hyperactive or cancerous thyroid tissue. The iodine will cause a radiation hazard around you.

## Isolation

Due to the radiation caused by radioiodine therapy, you will be isolated for 1–3 days. The therapy usually starts on a Monday.

To undergo the therapy, you need to be able to cope independently and manage chores on your own.

If you smoke, start using nicotine patches or gum already at home. Smoking at the ward is prohibited.

You must wear hospital clothes. You must be alone in your room during the isolation. You are not allowed to leave the room and you are not allowed to have visitors. You will be able to contact the treatment staff by phone.

You can bring entertainment with you, e.g., something to read or crafts. The room has a TV. You may use your mobile phone and smart devices.

The isolation room has a pass-through box. You will receive all meals and necessary supplies and medicines through it. Your dishes will be single-use and the room has its own bin for trash.

Radioactive iodine is mainly excreted in urine, but also in feces and in saliva. You need to drink plenty of water during the therapy. You may increase saliva production by chewing gum, eating sour candy, or by drinking sour juice, for example. You may bring chewing gum and sour candy with you.

You cannot shower during the isolation. However, you can wash your genital area.

You must wear disposable gloves when using the toilet. Flush the toilet 2 or 3 times after every use. Wash your hands carefully afterwards. If urine ends up on the floor, you will receive separate instructions on how to clean it.

If you vomit within two hours after ingesting the radioiodine capsule, please contact the staff at the isolation ward. You will need to wear single-use nitrile gloves when cleaning up vomit. Other excretions as well, such as diapers containing urine etc., must be handled carefully and with nitrile gloves.

Adverse effects associated with radioiodine therapy are rare. Your neck may feel hot or painful. You may feel nauseous. You may also experience swelling on the neck or shortness of breath.

Let the nurses know if you experience any symptoms. If needed, you will receive medicines to alleviate the symptoms. You will be instructed on how to use cold packs and supplemental oxygen.

The remaining radiation will be measured with a radiation meter. Once the radiation is at the agreed upon level, you may go home.

Scintigraphy will be performed 7 days after the radioiodine therapy. You will be lying down during the imaging examination. It is completely painless.

Your body will remain slightly radioactive when you are discharged. Please follow the radiation protection instructions in this letter.

### **After the treatment**

Drink more fluids than usual and urinate frequently after the examination. The radioactive tracer leaves your body in urine.

Wash your hands carefully after using the toilet, and if possible, dry them with a paper towel. Your urine will be radioactive. Flush the toilet 2 to 3 times.

If you are breastfeeding, you will have to stop breastfeeding completely after the contrast medium has been given.

You may not become pregnant or father a child for 6 months after the therapy. The radiation may affect the eggs and the sperm and therefore damage the potential fetus.

**FOLLOW THESE INSTRUCTIONS AFTER ISOLATION** so that the people you are in contact with will not be exposed to excess amounts of radiation.

You can travel home by public transport if the trip takes less than an hour.

Sleep alone during the first 4 days. If other people sleep in your apartment, your beds must be 2 meters apart from each other, even if there is a wall between them. Walls do not

protect from the radiation caused by this therapy.

### **Interaction with children and pregnant women**

For the first 12 days after the therapy, do not stay close to children under school age or pregnant people for more than 30 minutes a day (less than 2 meters). This also applies to holding children. During this time, it would be good if someone else would take care of any children under the age of 2. If this is not possible, limit the time spent in close proximity as much as possible.

In the next 2 weeks (days 13 to 26) it is recommended that you do not stay close to pregnant women or children under school age for more than 3 hours a day (less than 2 meters).

### **Social situations**

For 2 to 3 days, avoid social situations where you would be in close contact (less than 2 meters) with the same person for several hours. These situations include workplace, public transportation, movies, theater, visits, etc.

If you are unexpectedly hospitalized during the first week, inform your attending physician about the therapy you have received.

### **Working**

If you work with children, your attending physician can write you a certificate for sick leave.

## **Travelling abroad**

Customs posts have security devices that detect radioactivity. The Nuclear Medicine Unit will provide you a certificate about the therapy for any trip abroad or hospitalization. Exception: Russia does not allow entry for patients that emit radiation even with a certificate until 2 weeks have passed from receiving the therapy.

## **Other things to note**

Further information about the medicines mentioned in these instructions is available online at [www.laakeinfo.fi](http://www.laakeinfo.fi) (not available in English). You can also ask your attending physician about the medicines. You will receive the results of the examination from the doctor who treats you. If you do not know how to find out the results, please contact the outpatient clinic or ward that referred you to this examination.

You will not be charged for the examination separately. Cancel the appointment if you cannot come. If you do not cancel, you will be charged a fine.

## **Contact information**

Nuclear Medicine Unit, tel. 040 127 4273

Ward K5, tel. 05 352 4055