



After consultation with your physician you have decided to be treated with radioactive lutetium at the Department of Nuclear Medicine of the Erasmus MC Cancer Institute, location Daniel den Hoed. This brochure provides you with information on your therapy and everything related to it.

**Therapy at the Department of Nuclear Medicine
with radioactive lutetium (Lu-177-octreotate)**

Radioactivity and radiation

Many radioactive substances are as old as the earth itself. They emit radiation and are present in the air, in the walls of your house, in the food we eat and in our bodies. This is called natural radiation. In addition, there is also man-made artificial radiation, which is being used for your treatment with radioactive lutetium.

Why are you being hospitalized

The Dutch government established standards in the Nuclear Energy Act to protect the population from radiation as much as possible. After your treatment most radioactive lutetium will be removed from the body via the urine. To prevent radiation of members of the public the radioactive urine has to be collected in special tanks. That is the reason why you have to be hospitalized. Also, as a precautionary measure related to possible side effects, hospitalization is advisable.

Preparations at home

In order to make your stay as pleasant as possible, we advise you to bring:

- Fruit, candy (chewing gum) and, if desired, your favourite beverages (for instance: wine is also allowed). In between the meals you can eat and drink what you are used to at home. Coffee, tea, lemonade, fruit juice and mineral water are available.
- Items to entertain yourself, such as a book, magazine, game or laptop. Consider a television guide or DVDs as well. A television (and in most single rooms a DVD player) is present in your room.
- If necessary, your own tools or devices, such as a rollator/walker.
- Patient registration card.
- Your other medications (intake as you are used to at home).
- Clothing, since you do not have to stay in bed.
- Pyjamas, bathrobe and slippers (you are not allowed to walk barefooted).
- Toiletries.

The day of admittance

On the day that you are being admitted, please register to the counter of 'Ingang Poliklinieken' (Polyclinics) at Erasmus MC Cancer Institute, location Daniel den Hoed. Then you go to the ward at A0 where you are welcomed by a member of the PRRT research staff of Nuclear Medicine who will show you your room. You will also get more information on the therapy and daily routine in the ward.



Single room



Triple room



Bath room

The ward

The ward at A0 consists of 5 single rooms and 1 triple room. In between the room and the corridor is an area, the 'interlock'.

You can use the telephone for free. When you first dial a 0, you can enter any desired Dutch number (including mobile numbers). Calls abroad will be charged however and these have to be arranged via the operator (* 990). After admission, you can pass on the phone number of your room to your family for direct calls. You can make free use of wireless internet.

In your room you can prepare (instant) coffee, tea or soup using the water cooker. A fridge, to store the beverages or food you brought, is available as well.

At this ward some matters differ from elsewhere in the hospital. During your stay you are not allowed to have visitors. Furthermore your room will be closed (not locked), and you should stay inside the room.

For cases of emergency the rooms have been equipped with a call-alarm system to communicate with the nursing staff on the ward. This call-alarm system is located next to your bed and also contains the phone and a button for the bedside lamp. Furthermore, an alarm can be activated by pushing the button next to the toilet or pulling the red cord in the shower.

The stay

Like at home you have to take care of yourself during your stay at the ward. Three times a day a meal will be served with drinks in between. For breakfast and lunch several bread variants are available.

During your stay the room will not be cleaned. Therefore you are supposed to keep your room and bathroom neat and tidy.

The nurses are day and night available via the nurse-call-system.

During your stay you may wear your own clothes, which you can take home afterwards. Contamination with radioactivity can only occur with urine. To prevent this you can use sanitary napkins, which are available at the ward. A small amount of urine is already completely removed by one cycle of machine washing.

NB: SMOKING IS PROHIBITED IN OUR HOSPITAL ! It is not permitted to smoke in your room or at the ward. The physician can prescribe a nicotine patch, if necessary.

The treatment with radioactive lutetium

The treatment starts with the administration by infusion with amino acids, which will last for 4 hours, in order to protect the kidneys. After approximately half an hour the radioactive lutetium will also be administered by infusion, which takes about 45 minutes. During this administration you should sit or lie down to prevent radioactive contamination. The amino acids infusion will take approximately another 2.5 hours.

IMPORTANT POINTS

- Following administration of the radioactive dose you should stay inside the room and not enter the interlock.
- During your stay you should drink more (water, tea, coffee, etc.) than you are used to. Afterwards it is no longer needed, because the majority retained radioactivity will remain fixed in the body and tumor(s).
- Make sure your hands do not get in contact with your urine. In case it accidentally happens, you should wash your hands thoroughly. Radioactive urine can be washed off easily.
- After using the toilet, you should wash your hands thoroughly. The taps can be handled best with your elbows.
- If accidentally urine is being spoiled, you can cover it as best as you can with paper towels (do not wipe or polish). By no means clean with water, but report immediately to the nursing staff.

- It is forbidden to urinate in the shower or sink.
- Use the toilet only while seated. This also applies for men!
- Never discard paper towels in the toilet. This may cause clogging of the sewage system.
- Panty liners and sanitary napkins should be discarded (wrapped in plastic bags) in the bins and NOT IN THE TOILET!
- You are advised not to bring any valuables during your stay.

Going home

On the day after therapy you will be scanned and you will have a brief evaluation with one of our physician investigators. Before discharge the radiation level will be measured at approximately 13:30 to determine the duration that you will have to adhere to the 'guidelines after therapy'.

If you will make a flight shortly after treatment, please mention this during the discharge measurement. You will receive a "Radiation Safety Certificate", a travel declaration to demonstrate that you are radioactive because of a treatment and that the dose to neighbouring people is less than the dose limit for members of the public.

Before you leave, please make sure that all waste and disposable material is deposited in the appropriate bins. You can take home your clothes and other items you brought with you. If you have any comments about the stay in our ward, please write it in the visitors' book that is present in your room.

Guidelines at home after treatment with radioactive lutetium

When you leave the ward, the radiation level is so low that there is hardly any risk for your environment. However, for several days after discharge you should follow guidelines that are listed in a letter that you receive when going home. In this letter the duration that you have to adhere to these guidelines will be indicated.

Usually this period to keep distance from adults will be up to two weeks and from children under 10 years of age and pregnant women up to three weeks. However, the exact duration will be determined based on the your radiation level at time of discharge.

The general guidelines are also included in this brochure, but please follow the rules as described in the letter you receive upon departure. It's possible that changes have been introduced or that additional personal advice will be given.

These guidelines, defined by the Dutch government and all departments of Nuclear Medicine, should be handed out to patients in all Dutch hospitals. These guidelines serve the aim that outsiders (members of the public) but especially housemates, receive no higher radiation dose from you than is legally allowed. The legal dose limits are set very low in order to exclude any possible risk.

General guidelines at home after treatment with radioactive lutetium

- Keep distance to your family and visitors if you are in their vicinity for a longer period. At least for one meter, but preferably at a greater distance.
- It is recommended that your partner and you sleep separately, at least at 2 meters distance from each other, if possible in separate bedrooms. Pregnancy within six months after treatment must be avoided. This applies to female as well as male patients. There is no objection to having sexual intercourse.
- To avoid contamination you should only use the toilet in a seated position (men as well). Always use toilet paper and wash hands thoroughly afterwards.
- Nursing of children under 10 years of age must be done by another person. If that is not possible in your home situation your children should stay elsewhere.
- Visitors should remain at a distance and avoid direct physical contact. Children under 10 years of age and pregnant women cannot visit you.
- Using public transport should be limited to 1 hour per transport. In a taxi you should sit diagonally behind the driver and you should not travel for longer than 2 hours with the same taxi driver.
- Avoid meetings or gatherings during which you are sitting close to others (for instance cinema or church). Limit such close contacts to a maximum of 1 hour.
- You are not prohibited to work during the period that the guidelines are in force, unless you are working with children under 10 years of age. You should still keep distance from other people.
- Lactation should be stopped directly after the treatment and breastfeeding should not be resumed.
- If you are hospitalized during the period that the guidelines are still in force, the radiation health officer of that hospital should be informed.

Further significant information

Your housemates can receive a low dose of radiation, because some radioactivity is left within you. However, this residual radioactivity is not transferable and therefore you cannot 'contaminate' your family with radioactivity. So, your family members/house mates may have contact with children or pregnant women (the remaining radioactivity/radiation can be compared with the heat from a heater; your housemates can feel the heat, but not take it with them).

Long-term contact at short distance/direct vicinity (less than 1 meter) to a person treated with radioactive lutetium, results in higher radiation dose to a visitor than short-term contact (maximum 30 minutes) per day. Therefore, by sleeping next to each other (for several hours) the maximum value for housemates might be reached but not by short-term physical or sexual contact.

The legislation on dose limits are quite tight and therefore safe. They only apply to people. In general the lifetime of pets is much shorter than of humans. Since no harmful effects of your radiation level to pets can be expected, you do not need to take any precautions regarding your pets.

Finally

For medical questions, please contact your (consulting) physician.

If you have any questions about radiation and /or risks, please contact the radiation health officer of the Department of Nuclear Medicine, by calling (010) 704 01 32, and ask for the health officer.

For any other questions, you can contact the Department of Nuclear Medicine during office hours at (010) 704 13 74 (location Daniel den Hoed) or (010) 704 01 32 (Rotterdam-Centre).

More information

Additional general information on lutetium therapy can be found on the website:

<http://www.prrt.nl>



www.erasmusmc.nl/kankerinstituut