



Lu-177 DOTATATE THERAPY

What is Lu-177 treatment?

Lu-177 is a radioactive substance that we can add to a carrier called DOTATATE. Lutetium-177 is an atom that sends out radioactive particles. Octreotate joins to your neuroendocrine tumor with the radioactive Lutetium atom attached to it. Once in your body, the Lu-177 DOTATATE attaches to specific tumour cells and destroys these cancerous cells.

It is known to be effective in:

- neuroendocrine tumours
- paragangliomas, neuroblastomas
- certain types of thyroid cancer

Any Lu-177 DOTATATE that is not absorbed by the tumor cells passes out of your body in your sweat, saliva, urine and stool. The Lu-177 DOTATATE that is trapped in the tumor cells leave the tumor and are passed from your body.

Investigations that will be needed for the treatment

You need a scan before the treatment known as octreotide scan or Ga-68 DOTATATE PET/CT which you may have had done already. You will need tests which your doctor will arrange for you, as follows:

Blood tests 2 weeks before the treatment

A scan 1 hour after the treatment is given

Blood tests around 6 weeks after the treatment

Is there any preparation before the treatment?

Ensure that if you are taking a depot somatostatin analogue preparation this is stopped 6 weeks before lutetium treatment. You may require subcutaneous octreotide (100mg tds and increase according to symptom control) in the interim. If you feel unwell before the date of the treatment please inform us on 012 354 1885.

If you have any questions/emergency, please call the following contacts:

During office hours: 012 354 1885/2273

After-hours: 012 354 1000 (Ask for Nuclear Physician on call)



**DEPARTMENT OF NUCLEAR MEDICINE
FACULTY OF HEALTH SCIENCES**

How is Lu-177 treatment given?

You will be given medicine to prevent nausea (feeling sick to your stomach). The treatment is given through a drip into your vein over the course of one hour. You will also receive a fluid solution containing amino acids (proteins) through another drip over four 4 hours to protect your kidneys from the effect of radiation. The Lu-177 DOTATATE will then be given. The Lu-177 DOTATATE takes 60 minutes to infuse.

What happens after the procedure?

You will remain in hospital in a lead lined private room due to the radiation in your body. During the first 12 hours after the treatment a large amount of the radioactivity passes out of the body through your urine. A scan is performed the day after treatment in the Nuclear Medicine department. The majority of patients can be discharged after the single overnight stay.

Will there be any danger to my family or friends?

You will usually be discharge the following morning after treatment because this type of treatment delivers its radiation within your body and only very small amounts exit your body. As a precaution, during the treatment no visitors are allowed. Following discharge your family and friends are not at risk but we recommend some sensible precautions:

- Always flush the toilet twice after use for one week after the treatment
- Refrain from all contact with young children and pregnant women for 3 days
- Restrict close contact with other adults for 3 days
- Avoid sharing a bed with another person for 3 days

On the day of treatment you will be given specific advice according to your individual circumstances as the advice depends on the amount of treatment your doctor prescribes.

Can I have treatment if I am pregnant or breast-feeding?

No. Women who are pregnant or breast-feeding must not be given treatment. Lu-177 DOTATATE is radioactive and is not given if you are pregnant. If there are any concerns about pregnancy, a pregnancy test will be done. Reliable birth control should be used until treatment has finished and for at least 6 months afterward. Men are advised not to father a child for the same period. If you are breast-feeding, you should tell your doctor so you can discuss stopping this before you have therapy.



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How many treatments will I need?

Usually 3-6 treatments are given every 8-12 weeks but you will be seen in our clinic after each treatment to reassess your health and response to the therapy. The subsequent treatments will depend upon the effect therapy had on your blood cells, kidney and liver

Subsequent clinic assessment (including bloods and scan) are required 2 weeks prior to next treatment cycle.

Are there any side effects?

The most reported side effect is nausea but we will give you an injection before the treatment to prevent this and we will give you tablets to take home.

Other reported side effects are:

- Temporary reduction in your blood count and white cells
- Transient hair loss
- A reduction in kidney function
- Tiredness

Leaflet compiled based on;

1. LONDON HEALTH SCIENCES CENTER
2. BONN NUCLEAR MEDICINE
3. IMPERIAL COLLEGE, LONDON

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Informed Consent

I have read, or had read to me in a language that I understand, the above information before signing this consent form. The content and meaning of this information have been explained to me. And I have had a chance to ask the doctor questions about things I did not understand. I realize the risks of such treatment and that I could have other kinds of treatment. I voluntarily, of my own free will, consent to the type of treatment described above and agree to assume the usual risks involved in such treatment. I understand no guarantee or warranty of successful treatment has been made to me. I also represent that I am not pregnant or nursing a child at the present time.

PATIENT'S NAME..... PATIENT'S SIGNATURE

DATE.....

PHYSICIAN'S NAME..... PHYSICIAN'S SIGNATURE.....

DATE.....

WITNESS'S NAME..... WITNESS'S SIGNATURE

DATE.....