



**KERNGENEESKUNDE / NUCLEAR MEDICINE
TYGERBERG HOSPITAAL / TYGERBERG HOSPITAL**

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Lu-177 PSMA THERAPY PATIENT INFORMATION

You / your relative / child have been booked for Lu-177 PSMA therapy, which will be done at Tygerberg Hospital.

Please read the information in this leaflet carefully. If you have any further questions you are welcome to ask a doctor during your treatment, or phone us before your treatment.

What is Lu-177 PSMA treatment?

Lutetium-177 (Lu-177) prostate specific membrane antigen (PSMA) therapy is a promising new treatment for **prostate carcinoma** that has not responded to medical treatment.

Although Lu-177 is a radioactive substance, it is safe to use. Once in your body, the Lu-177 PSMA attaches to tumour cells and destroys these cancerous cells. Any Lu-177 PSMA that is not absorbed by the tumour cells is excreted by your body in your urine and stools.

Investigations that will be needed for the treatment

You will need to undergo a specific scan called a gallium-68 PSMA PET/CT scan to confirm whether or not you are a candidate for the treatment. You may already have had this scan. If not, we can perform the scan.

Your doctor will arrange blood tests approximately 2 weeks before the treatment and again 1 month after the treatment. In the Nuclear Medicine division you will also be booked for studies to assess kidney and salivary gland function.

Is there any preparation before the treatment?

If you were treated with Taxane-based chemotherapy this must be stopped for at least 4 weeks. Please consult your referring physician if you are unsure whether to stop any medication. If you feel unwell before the date of the treatment please inform us on one of the numbers at the end of this document, or send us an e-mail to nmtherapy@sun.ac.za. You may have a light breakfast with juice or tea on the day of therapy, but please limit coffee and any fatty foods as this may result in nausea during the treatment.

How is Lu-177 treatment given?

The Lu-177 PSMA will be given by intravenous administration. This drip will run for 10 minutes.

What happens after the procedure?

You will remain in hospital in an isolated private room due to the radiation in your body. During the first 12 hours after the treatment, a large amount of the radioactivity leaves your body through your urine. We therefore suggest that you drink enough water during this time and void frequently to help prevent unnecessary radiation to the kidneys and bladder. A scan is performed 1 and 4 hours after treatment and again on the next day in the Nuclear Medicine division.

The majority of patients can be discharged after the single overnight stay. A 3rd and 4th scan will be done at 48 h and 72 h following the treatment.

Will there be any danger to my family or friends?

You will usually be discharged the morning after treatment. Lu-PSMA treatment delivers its radiation within your body and only very small amounts exit your body. However, 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.
- Avoid physical contact with young children and pregnant women for 3 days.
- Limit close contact with other adults for 3 days.
- Avoid sharing a bed with another person for 3 days.

On the day of treatment, the doctor will give you specific advice. This advice depends on the amount of treatment your doctor prescribes for you.

How many treatments will I need?

Usually 3-4 treatments are given 6 - 8 weeks apart, but your health and response will be reassessed after each therapy cycle. The subsequent treatments will depend on the effect that the therapy has had on your blood cells, kidneys and liver.

Subsequent clinic assessments (including blood values) are required 2 weeks before the next treatment cycle.

Are there any risks or side effects?

In general, the side effects of this treatment are much milder than those that people experience with chemotherapy. Nevertheless, some side effects, as explained below, may occur.

Common, temporary side-effects that may occur in the **short term**:

- Nausea and/or vomiting (we will give you medicines to prevent/treat this). This usually occurs on the first day. Diarrhoea or indigestion may also occur.
- Tiredness
- Temporary hair loss (but not baldness). If this occurs, hair will start to regrow once the treatment cycles have been completed.

Common side effects that may occur in the **medium term**: Temporary reduction in the number of blood cells and platelets. This is the most frequent side effect, but is rarely serious. Usually, you would not even be aware of it. A small number of patients may complain of a dry mouth, due to radiation to the salivary glands, but this is not a permanent problem, and will disappear within three months.

Over the **longer term**, a few patients may experience more serious side effects. These are rare, but include:

- Myelodysplastic syndrome (an early form of leukaemia) (less than 1% of patients)
- Serious deterioration in kidney function (less than 1% of patients)
- Serious deterioration in liver function (rare)

Where will I be admitted?

Because you need to be isolated, we will admit you in a Radiation Oncology isolation ward in the Gene Louw building of Tygerberg Hospital. Please report to the reception area in this building around 07:30.

If you have any questions/emergency, please call one of the following numbers: During office hours: 021 938-4265 / 021 938-4268 / 021 938-4352 / 021 931-1519; After-hours: 021 938 4911 (ask for Nuclear Medicine Physician on call). You can also send an e-mail to nmtherapy@sun.ac.za. We will then either call you back or communicate via e-mail.

FIND US

If you have any questions, please do not hesitate to ask.

CONTACT US:

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