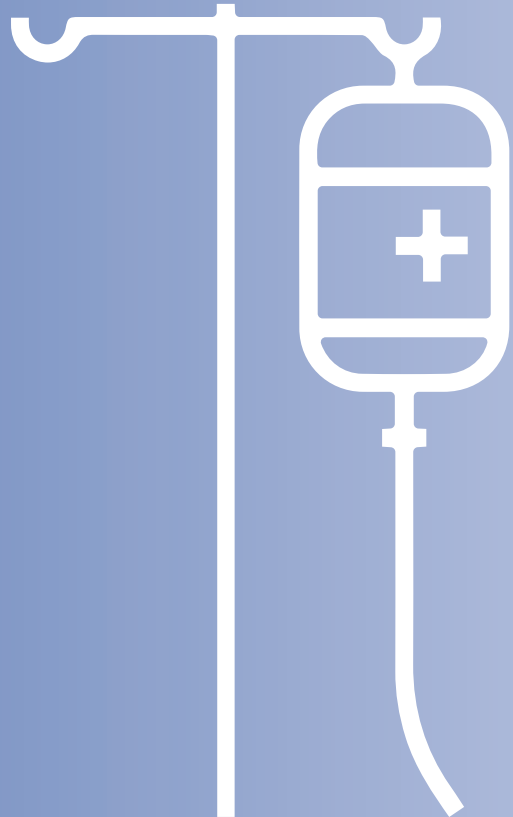




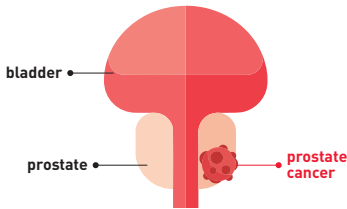
# LU177-PSMA THERAPY

PATIENT EDUCATION



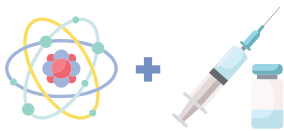
# Lu177-PSMA Therapy

## What is Lu177-PSMA Therapy?



Lu177-PSMA therapy is a type of molecular therapy that is used to treat **metastatic prostate cancer**. Lu177-PSMA therapy is also known as radionuclide therapy or radioisotope therapy.

## How does Lu177-PSMA Work?



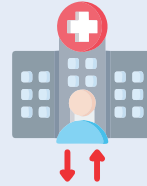
A radiopharmaceutical is used, which is a combination of a **radionuclide and drug** to **target** it to the tumour.

Lu177-PSMA delivers a targeted high dose of radiation to the cancer cells, while reducing harm to healthy tissues.

## What Drug is Used?

The radiopharmaceutical used is **Lu177-PSMA**.

## How is Lu177-PSMA Treatment Given?



Treatment is done as outpatient and hospitalization is not required.



The Lu177-PSMA drug will be given by slow intravenous injection. The drug administration process will take around 1 hour to complete.



After treatment, the patient will undergo a post therapy scan or dosimetry scans.



After the scan or scans are done, the treatment is completed.

## Which Patients will be Suitable for Lu177-PSMA Therapy?



Patients with metastatic prostate cancer and the following:

- ✔ Failed 3rd line androgen deprivation therapy (ADT) or chemotherapy.
- ✔ Patients who do not prefer or cannot have one of the 3rd line ADT or chemotherapy, due to contraindications.

To determine whether a patient is suitable for this treatment, he will first consult the Nuclear Medicine Consultant, to review the results of all investigations.

## The Lu177-PSMA Treatment Plan

### A. Consultation

The patient books an appointment with our Nuclear Medicine Consultant, who will go through the patient's history and records. Assessment will be done to determine if the patient is suitable for Lu177-PSMA, which includes some or all of the following:

- ✔ Blood tests
- ✔ FDG PET/CT scan
- ✔ Ga68-PSMA PET/CT scan
- ✔ Renal DTPA scan

If the patient requires therapy, a treatment date will be selected and the patient has to pay the deposit to order the Lu177-PSMA drug.

### B. Lu177-PSMA Treatment

Treatment is done as outpatient:

#### Normal Lu177-PSMA Package

Lu177-PSMA is given on the 1<sup>st</sup> day. Post therapy scan will be done on the 2<sup>nd</sup> day and treatment is completed.

**OR**

#### Lu177-PSMA Dosimetry Package

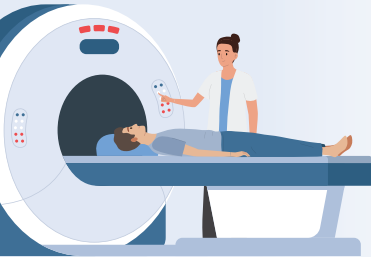
Lu177-PSMA is given on the 1<sup>st</sup> day. Dosimetry scans are done on 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> day, then treatment is completed.

## How Many Cycles are Needed?



The number of cycles for each patient depends on his disease conditions. The treatment is repeated every 8-12 weeks, usually for 4 cycles.

Post Therapy Scan and Dosimetry Scans



The Lu177-PSMA drug emits beta radiation that treats the cancer, as well as gamma radiation that can be seen in a **SPECT/CT scanner**.

The next day (24 hours) after Lu177-PSMA treatment is given, every patient will undergo a **post therapy scan** to image the drug location and disease condition.

In **dosimetry scans**, a total 4 scans are taken after Lu177-PSMA treatment (at 1 hour, 4 hours, 24 hours and 48 hours). The data collected is used to measure patient-specific biophysical parameters, to individualize treatment for each patient. This is important for maximising the treatment effectiveness while minimizing unnecessary radiation to healthy tissues.

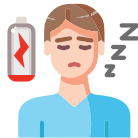
Lu177-PSMA Therapy Side Effects

Early side effects include:



**Nausea**  
(up to 20%)

usually controlled by anti-vomiting medicines



**Transient Fatigue**  
(up to 25%)

usually occur after 1 week and resolve after 2-4 weeks



**Transient bone pain**  
(up to 30%)

usually controlled by pain medicines



**Transient reduce blood count**  
(up to 40%)

usually occur after 2 weeks, and low grade  
Rarely require transfusion

Late side effects include:



**Salivary dysfunction and dry mouth**  
(up to 40%)

may take years to resolve



**Severe myelosuppression requiring transfusion**  
(up to 10%)

usually occur in low blood count at baseline and extensive blood involvement



**Kidney impairment**  
(rare)

occurs in patients with pre-existing reduced kidney function before the therapy

Special Precaution after Lu177-PSMA Therapy



After the treatment, the patient will have small amounts of radioactive in all of their body fluids and emit low levels of radiation to their surroundings.

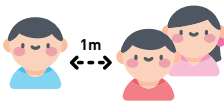
The following precautions are necessary to **reduce radiation exposure** to their family and others around them. The patient has to do these for **1 day after discharge** from hospital:



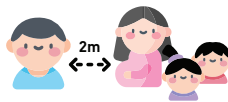
Flush at least **2 times** after using the toilet.  
Men should sit down to urinate to avoid spills.



Wash hands often.



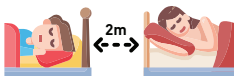
Keep a distance of **1 meter** from other adults.



Keep a distance of **2 meters** from pregnant women and children below 5 years old for **3 days**.



Avoid direct physical contact with others.



Sleep in a separate room, or in a separate bed at least 2 meters apart.



Avoid public or crowded places.  
Limit the time in public transport.



Wash clothes and linen separately, 1 week after treatment.



Do not prepare food for others or share food with others.






Use disposable plate and utensils. If using regular dishes, wash them separately from others.



Men **should not plan a pregnancy** with their partner for 6 months after treatment.

For more information, kindly contact us at:

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-  [smc@sunway.com.my](mailto:smc@sunway.com.my)

The Nuclear Medicine Centre is located at:  
Basement, Tower C

Operation Hours

- Mondays-Fridays 8.30am - 5.30pm
- Saturdays 8.30am - 12.30pm
- Closed on Sundays and Public Holidays