



Lu-177 PSMA Therapy

Lutetium-177 Prostate-Specific
Membrane Antigen Therapy

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What is **PSMA**?

Prostate-Specific Membrane Antigen (PSMA) is a protein expressed on the surface of prostate cancer cells. PSMA is also present in small amounts in other tissues like salivary glands, tear ducts, the small bowel and kidneys.

What is a **PSMA PET-CT Scan**?

A PSMA PET-CT scan is a three dimensional scan used to detect the cancer cells in your body that express PSMA. This scan helps to determine if your prostate cancer is suitable for Lu-177 PSMA Therapy.

What is **PSMA Therapy**?

Lu-177 PSMA Therapy uses a PSMA-targeting molecule similar to the one used for imaging during the PSMA PET-CT scan, but instead of just highlighting where the cancer is, it works to kill the cancer cells.

Once injected into your vein, it travels to the prostate cancer cells throughout your body. Lutetium-177 emits radiation that is strong enough to kill cancer cells while minimising damage to healthy surrounding tissue.

Is PSMA Therapy right for you?

PSMA Therapy may be considered if:

- You have tried other standard therapies, such as chemotherapy and hormone therapy, which are no longer effective.
- Your PSMA PET-CT scan shows that your prostate cancer cells express PSMA and are likely to respond to this therapy.

How effective is PSMA Therapy?

PSMA Therapy is not a cure for prostate cancer, but it can help to:

- Reduce pain, fatigue, and other symptoms caused by your cancer.
- Slow the growth and reduce the size of tumors.
- Improve your overall quality of life.

Your response to the therapy will be monitored through how you feel, blood tests, and scan results.



What does PSMA Therapy involve?

First specialist appointment:

- Prior to starting therapy, you will have a consultation with the Nuclear Medicine Specialist and Therapy Nurse. During this consultation the Nuclear Medicine Specialist will discuss the therapy with you and review your most recent imaging and blood tests to ensure that Lu-177 PSMA therapy is appropriate.
- During your therapy, the Nuclear Medicine Specialist will collaborate closely with your oncologist to provide you with the highest quality of care.

Therapy Schedule:

- PSMA Therapy requires 2-3 visits to the Canopy Imaging Molecular and Therapy Centre in the same week.
- The therapy is administered every 6 weeks, and you may have up to 6 cycles of therapy.
- Each therapy cycle is an outpatient procedure, so you will not need to stay in the hospital overnight.

During Therapy:

- On the therapy day, an intravenous cannula (IV) will be inserted into a vein in your arm, and the Lutetium-177 PSMA will be administered over 15–20 minutes.
- You will receive intravenous fluids following the therapy, and once the radiation in your body is measured to be at safe levels, you will be able to go home.

Post-Therapy:

- The next day, you will have a post therapy SPECT-CT scan to ensure that the Lu-177 therapy has been taken up by your tumour cells.
- After the scan, you will have a post therapy consultation with the Nuclear Medicine Specialist to discuss your scan results and follow up plan leading up to the next therapy cycle.
- You will need to see your Oncologist and have some routine blood test 3 weeks after each therapy cycle.

What are the side effects of Lu-177 PSMA Therapy?

The side effects of Lu-177 PSMA Therapy are usually mild compared to other therapies you may have experienced.

- **The most common side effects may include:**
Dry mouth, dry eyes, tiredness, nausea, reduced hemoglobin (red blood cells that carry oxygen in the body), and reduced platelet counts (blood cells that aid blood clotting).
- Other possible side effects may include increased pain and loss of appetite.

Radiation safety precautions

After receiving Lu-177 PSMA Therapy, you will be radioactive for a short period. To protect others you should follow some precautions:

- **Avoid close contact:** Keep at least 2 metres away from others, especially children and pregnant women, for the first 5 days.
- **Sleep arrangements:** Sleep in a separate bed for the first 3 nights.
- **Personal hygiene:** When using the toilet, sit down to avoid splashing, flush twice after use, and wash your hands thoroughly afterward for 3 days.

Do you require more information?

If you have any questions or need more information with regards to Lu-177 PSMA therapy, please contact the Canopy Imaging Molecular Imaging and Therapy Centre. We are here to support you throughout your therapy.

Contact Information:

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