

Lutetium-177 PSMA Therapy

For Metastatic or Treatment Resistant Prostate Cancer

What is Lutetium-177 PSMA Therapy?

Lutetium-177 PSMA Therapy, or Prostate-Specific Membrane Antigen Therapy, is treatment that is increasingly being used for people with advanced prostate cancer. This therapy aims to reduce the size of the tumour/s and stop them from multiplying, as well as to ease the symptoms that people may get with these tumours. It is most often used when the disease has metastasised and when other therapies are poorly tolerated or have failed.

How Does Lutetium-177 PSMA Therapy Work?

PSMA is a type of protein located on the surface of a cell and is naturally found on the prostate gland. In someone with prostate cancer, an increased amount of PSMA cell surface receptor is present. If the prostate cancer has spread to other parts of the body (i.e. metastasised) the PSMA will also appear in those areas.

Lutetium-177 PSMA Therapy uses a molecule which attaches itself to the PSMA receptors on the cancer cells. Before it is administered, the PSMA molecule is bound with Lutetium-177, which emits beta radiation, a destructive type of radiation that damages the cancer cells when it is in close proximity to them. Over time, it destroys the prostate cancer cells. The PSMA molecule acts as a means of transporting the radiation to the tumour site, so that the whole body does not get exposed to the radiation.

Is This Treatment Safe?

The radiation used in this therapy is designed to damage and kill the cancer cells. As the PSMA travels to the tumour locations, it targets the unhealthy cells. Aside from prostate gland and cancer cell, PSMA is also in the salivary glands, lacrimal glands, kidneys and small intestine, so there may be mild radiation exposure to these cells.

Any damage to these areas, however, is minimal. Side effects of this type of therapy may include a dry mouth, tiredness and a brief decline in the production of blood cells. Blood tests are performed intermittently to ensure the radiation is not damaging healthy tissue.

