

177Lu-DOTATATE therapy for neuroendocrine tumours

One of the most common treatments for cancer is external beam radiation therapy. It is possible to deliver radiation directly to the tumour using radioactive isotopes that are administered either orally or by injection.

Somatostatin receptors are highly expressed on the surface of neuroendocrine tumours and their metastases. This enables the delivery of targeted radiation to tumour cells. A peptide (DOTATATE) labelled with the radioactive isotope lutetium-177 (^{177}Lu) binds to the somatostatin receptors on the tumour leading to the destruction of the tumour cells.

Before ^{177}Lu -DOTATATE therapy, several blood tests and examinations must be performed, which will be prescribed by your doctor. Before coming to the hospital on the day of your treatment, eat a normal breakfast and drink plenty of water (about one litre in addition to your usual volume).

You will be admitted to the hospital for at least one night. During this time, several images are taken of your body with a gamma camera to assess the distribution of ^{177}Lu -DOTATATE in your body.

After the end of the therapy, you can leave the hospital and continue as normal. Over the next 2-3 days, it is important to drink plenty of fluids (2-3 litres per day) to protect the kidneys and allow the remaining radioactive substance to be cleared faster from the body.

When you leave the hospital, the staff will give you written instructions on how to safely interact with others after radiation therapy.

For more information about the therapy, see patient information.