The Royal Liverpool and Broadgreen University Hospitals

NHS Trust



Patient information

Radionuclide Therapy for Neuroendocrine Tumours

Imaging Department

Royal Liverpool Hospital and Broadgreen Hospital

PIF 1306/V2

Your Consultant / Doctor has advised you to have radionuclide therapy. There are two types of treatment and the type best for you will be discussed by your consultant.

What is radionuclide therapy?

You will have already had at least one scan which has shown the doctors which treatment you may respond to, Luttieum or Yttrium dotatate. This drug will then be labelled with radioactivity, which will then be given as an infusion into your arm. It directly targets the places where you have a tumour and/or secondaries.

What are the benefits of having radionuclide therapy?

The aim of the therapy is not curative but to try to control any symptoms you may have such as diarrhoea, flushing and wheezing. In some cases it has also been found to stabilize growth of or even shrink the tumour.

What are the risks of having radio labelled isotope therapy?

After the therapy you may have problems with nausea and sickness. You will be given medication if necessary to help with this.

If you normally take the drug octreotide or lanreotide it must be stopped or delayed before and after the therapy.

- If on short acting it must be stopped for 48 hours before and after.
- If long acting, we will give the therapy just prior to when your injection is due but will ask you to delay your injection until one week after your treatment.

You may therefore develop symptoms. If you have diarrhoea then you can have Codeine and/or Loperamide to try to control it. You may find flushing may start again this should be controlled when you go back on your octreotide. Your specialist nurse will be able to give you further advice about this.

There is also a small chance (less than 1%) of kidney damage, during the treatment you will be given two infusions to try to protect your kidneys and we will monitor your kidney function after treatment and act accordingly if there is any deterioration in your kidney function.

The treatment may affect your bone marrow causing low haemoglobin, low platelets, and low white cell count. It is essential you have bloods taken by your family doctor (GP) every two weeks. If these levels drop you may be asked to have weekly blood tests. If they remain low then advice will be sought from a Haematologist. This may result in your next therapy being delayed or cancelled.

Are there any alternatives to the treatment?

Although other forms of treatment are potentially available for neuroendocrine tumours these are not suitable for your particular condition and you are best treated with radionuclide therapy.

If you are worried about any of these risks, please speak to your specialist nurse, consultant or a member of their team

What will happen if I don't have the therapy?

If untreated your condition will follow its natural course

Getting ready for your therapy

- Once we have received the referral for therapy you will be contacted by one of the neuroendocrine specialist nurses who will explain the process to you.
- We will arrange for you to come to an outpatient appointment with Professor Vinjamuri who will explain what the therapy involves and allow time for you to ask any questions or raise any concerns you have.
- If you are happy to proceed we will arrange for you to have a
 Ga68 dotanoc scan, this is a pre therapy scan. You will
 receive further information about this scan if we proceed to
 this. If you are on analogue injections we will perform the
 scan towards the end of your injection cycle.

The day of your therapy

- You will be asked to come to the nuclear medicine department for 9am on the day of your therapy. On arrival we will screen you for MRSA. The results take approximately 24 hours to come through. If there is a problem with these swabs we will let you know. It may mean that you have to use a special body wash or nasal cream prior to next admission but it will not stop you being admitted.
- Please leave all cash and valuables at home. If you need to bring valuables into hospital, these can be sent to General Office for safekeeping. General Office is open between 08.30 and 4.30 Monday to Friday. Therefore, if you are discharged outside these times we will not be able to return your property until General Office is open. The Trust does not accept responsibility for items not handed in for safekeeping.
- Please bring any medication you take into hospital with you

- Please bring in toiletries, nightwear and towels
- Please bring in plenty of reading materials, jigsaws, puzzles etc., as you are not allowed to leave the room after your therapy. There is a TV in the room which we will provide a pre-paid card for.
 - You will be able to discuss the therapy with your specialist nurse and/or a doctor. You will be asked to sign a consent form to say you understand the procedure, and what it involves
 - If you are on regular medication, you will be told to take this
 - You will have a cannula placed into each arm. Two
 infusions to protect your kidneys will be started 30 minutes
 before your therapy and will continue for about three hours
 after your radionuclide therapy.
 - A doctor will administer an infusion of the radio labelled isotope, it takes about twenty minutes. Other people will be present for monitoring. A physicist, a pharmacist and your specialist nurse may be present.

What should I expect after my therapy?

- On the day of therapy you will not be allowed any visitors, after the first day adult visitors will be allowed in for only one hour a day and then they must not eat or drink in the room, or use the toilet. They will also be asked to wear protective clothing which will be left outside the room
- Children and pregnant ladies will not be allowed to visit.
- Unless necessary your bed linen will not be changed and your room will not be cleaned

- You must continue to eat and drink well after the therapy. Hot and cold water will be supplied for you to make your own tea/coffee
- You will be asked to use paper plates and plastic cutlery which can then be thrown away. Again this is a protective measure.

Going Home

Depending on which therapy you have depends upon how long you are in hospital, your team or specialist nurse will tell you this. On the day of your discharge you will be taken down to the Nuclear Medicine Department to have a scan. This scan is not diagnostic but will tell us that the radio labelled drug is targeting the right areas. Please take all your property down to the department, you will be allowed to go home straight from the department.

Discharge Information

When you attend the Nuclear Medicine Department you will be given an instruction card which details safety information. There are limitations on contact with children and pregnant women. It is essential that you keep this card and your admission letter with you in case of an emergency. It will also be needed if you plan to travel anywhere.

Getting back to normal

You may feel lethargic after this therapy; it is important that you rest after this procedure.

Further Appointments

- You must have bloods taken every two weeks after your therapy for 12 weeks after. A letter is sent to your family doctor on discharge so please contact your surgery to arrange appointments. Your specialist nurse will look at these results after they are done and contact you if there are any problems. If you have problems getting bloods taken then contact your nurse who will arrange appointments for you.
- We will be liaising with you over the phone at regular intervals over the phone and will plan your next therapy at approximately ten weeks depending upon your bloods and how you feel.
- After you have finished your course of therapy we will arrange for you to have a Ga68 dotanoc scan and CT scan in the nuclear medicine department approximately 12 weeks after your last therapy. These scans will be discussed in our multidisciplinary meeting to compare the pre therapy scan with the post therapy scan. This information will be relayed to your referring consultant.

Further Information

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All Trust approved information is available on request in alternative formats, including other languages, easy read, large print, audio, Braille, moon and electronically.

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