# The ROYAL MARSDEN NHS Foundation Trust

# Radionuclide therapy





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### Introduction

This booklet has been written to help explain radionuclide therapy. Your doctor will discuss this treatment with you, why it has been recommended and the likely benefits and known possible side effects. You may also be given additional information for your individual treatment. All aspects of this booklet will be discussed with you before your treatment. Please ask one of the team caring for you if you have any questions or if you do not understand something.

# What is radionuclide therapy?

Radionuclide therapy is a type of radiotherapy that uses radioactive materials to treat disease. The radioactive material is administered and concentrated in the part of the body undergoing treatment; however smaller amounts will be found in the blood and other body fluids.

## How is radionuclide therapy given?

Depending on the type of therapy, it may be given by mouth (orally), as an injection, or by slowly releasing the radionuclide through a pump into your body (infusion).

# Is radionuclide therapy safe?

This treatment is being given to benefit you. However, there is a possibility that it could be harmful to others. To reduce any risks you will be asked to take care with your personal hygiene and to observe certain precautions (see page 5).

## Are there any side effects?

Your doctor will explain any possible side effects resulting from your individual treatment. In general, radionuclide therapy may cause tiredness and, occasionally, nausea or an increase in existing pain. These effects are usually mild and only last for a few days. Medication will be given to ease any symptoms.

# What if I am pregnant or breastfeeding?

It is very important that you do not have radionuclide therapy if you are pregnant, or think there is a chance that you might be. Please let your doctor know if you are unsure before you have any treatment. Any sexual intercourse should be protected until all treatment has finished and for a few months afterwards. Your doctor will be able to discuss this with you.

If you are breastfeeding, you should stop before you have the radionuclide treatment.

Women are advised not to become pregnant for a few months following treatment. Men are advised not to father a child for the same period. The actual period of time will depend on the type of treatment you are having. In the long term your fertility should not be affected, although there may be a small risk if repeated treatments are needed.

# Do I have to come into hospital?

Radionuclide therapy is given in specialist treatment centres. A few treatments can be given as an outpatient. However, many treatments will require you to stay in hospital for several days.

### Consenting for treatment

Before you can give your consent, you doctor will discuss with you what the treatment is likely to involve, the benefits and risks, and any available alternative treatments. You may also be given some written information about the treatment protocol (procedure) that has been planned for you. It is important that you understand the information you have been given – ask questions if you do not understand or if you would like more information.

To help you think about what you want to ask your doctor, you may find the suggested questions in this booklet helpful (see page 7). You will then be asked to sign a consent form, as a written record that you have agreed to the planned treatment. Before you sign the consent form you will need to read the information on the benefits and risks associated with the treatment. You will then be given a copy of this to keep.

# How long will I have to make up my mind about treatment?

Your treatment plan may involve one or more treatments, for example, surgery and/or chemotherapy and/or radiotherapy. You will be asked to sign separate consent forms for each treatment before each treatment starts.

It is important to remember that once you have made a decision about treatment, you can change your mind at any time, even after you have signed a consent form.

# What investigations will I have?

Before you come into hospital you may have a small test dose of the radionuclide and a series of scans. From this, the physicist can work out the amount of treatment you need. You will be told whether these test apply to you. On admission you may have blood tests and/ or x-rays to check your general health. The doctor will also examine you.

# What should I bring into hospital with me?

When choosing what to bring into hospital, remember you may need to leave some things behind if they carry traces of radioactivity after your treatment. You will be able to collect them later.

Please note that the Trust will not be responsible for any loss or damage to any personal property. If you do have any valuables, please give them to the ward clerk before your treatment.

The following list may also be useful:

- Toothbrush and toothpaste
- Soap
- Shaving kit (preferably disposable)
- Hairbrush
- Fruit (without stones)
- Biscuits
- Fruit squash or other drinks (not sports drinks)

 Enough books, magazines, knitting, games, and so on, to last your stay.

If you are unsure about anything, please ask your doctor or nurse.

# What about my tablets?

When you come into hospital, please bring any tablets or medicines that you are taking with you and show them to the doctor.

# What happens when I come into hospital?

When you come into hospital you will be cared for in a single room with an en suite bathroom. During treatment, the staff will not be able to spend very long with you but you will be able to call the staff using a call button if you need them. They will come in to attend to your needs and will wear gloves and other protective clothing.

#### Can I have visitors?

Yes, but visitors may have to stay outside your room and the time they can spend with you may be restricted. The restrictions on visiting time will depend on the type of treatment you are having. This will be discussed with you before your treatment.

Children under 16 years old and pregnant women must not visit you as they are particularly prone to the effects of radiation.

You must not have any physical contact with your visitors. You must not hand them anything, such as food, drink, magazines or clothing.

### When will I have my treatment?

You will be given your treatment as soon as any tests have been completed and you have seen the doctor, nurse and physicist.

## What safeguards are taken concerning radioactivity?

After you have received your treatment, all your body fluids, such as saliva, sweat, blood, urine and stools, will be radioactive. Some of this radioactivity may get onto clothing, bed linen and other items.

Your meals may be served on paper plates with disposable cutlery and plastic cups. You will be told how to dispose of used items.

If you need to leave your room for any reason, for example a scan, you must put on disposable plastic shoe covers. These must be thrown away when you return to your room.

Anyone entering your room will wear gloves, a gown and overshoes. The time they stay with you will be limited.

### What can I do to help?

There is a lot you can do to prevent the spread of radioactivity and also to increase the speed with which any excess radionuclide leaves your body.

- Drink extra fluid, up to twice as usual, about two litres a day.
- Shower daily or more often if you wish.
- Do not splash water outside the washbasin when washing and particularly when cleaning your teeth. Rinse you washcloth and toothbrush well.
- Flush the toilet twice after use. Take care not to splash urine outside the pan (men may find this easier if they sit down).
- Tell the nurses straightaway if you have an accident with spillage or splashing.
- Tell the nurses if you become constipated so you can receive a laxative. (It is important that you have your bowels open regularly).
- Use tissues and flush them down the toilet.
- Do not walk barefoot in your room.
- Always wear plastic covers over your shoes or slippers if you leave your room.
- Change your bed linen daily. You will be asked to make your own bed, if possible.
- Wash your hands before reading, knitting or handling items a great deal.

- Do not lick postage stamps or envelopes.
- Do not chew the ends of pencils or knitting needles.
- Do not give anything from your room to anyone.

If you are concerned about anything or have questions, please ask the staff caring for you.

# What tests will I have after my treatment?

The amount of radioactivity in your body will be measured one or more times each day, using a special counter/monitor. You will be asked to either lie on your bed or to sit in a specific chair for the measurement. This only takes a few minutes on each occasion.

During your stay you will be asked to go to the nuclear medicine department for one or more scans.

#### What is the nuclear medicine scan?

This scan shows the position of any radioactivity in your body and also helps measure the progress of your treatment.

You will be asked to lie still on a flat surface while the scanner takes pictures from above and below you. If there is any reason why you cannot lie flat comfortably, please tell the radiographer before the scan. It may be possible to scan you in a different position.

# When can I go home?

You can go home when a safe level of radioactivity has been reached. The safe level is decided based on your individual circumstances, for example, if you live with babies or young children.

The physicist is trained in the handling of radioactive substances and all aspects of safety. They will explain your treatment and take daily measurements of radioactivity. The physicist will also discuss your return home, your work and your social activities.

Most people leave hospital with very little radioactivity left in their bodies and need to take few, if any, precautions when at home. Your physicist will advise you. If you have any concerns or questions, please ask.

#### Will I have to come back for another treatment?

Some people will need two or more treatments. Your hospital doctor will discuss your case with you when you return to the outpatient clinic.

# Questions you may wish to ask

Many people say they either do not know what questions to ask or they just cannot remember them. These are questions you might like to think about asking your doctor, physicist, nurse specialist or any other health professional involved in your radionuclide therapy and care.

#### About my treatment

- What are the benefits of the treatment you are advising me to have?
- What are the risks, if any, of this treatment?
- What are the success rates of this treatment?
- What are the risks if I decide to do nothing for the time being?
- Are there any other treatments I could have?
- How long will I have to wait before starting treatment?
- If there is a delay in starting treatment, how will this affect my outcome?
- What will the treatment be like and how long will it take?
- Will there be side effects and what can I do about them?
- How can I expect to feel after my treatment?
- How will my doctor know if my treatment has worked?
- Who should I contact if I have questions or concerns, during my treatment or once my treatment has finished?

# How treatment might affect my life style

- Will I still be able to drive?
- Will it affect my regular activities for example, work?
- Will it affect my personal/sexual relationships?
- Will I be able to take part in my favourite sport/exercises?
- Will I be able to follow my usual diet?
- Will I need to take any special precautions such as staying out of the sun?
- Will I be able to wash/shower as normal?
- Can I talk to someone who has had the same treatment?

# Sources of information and support

There are sources of information and support to help patients, their families and friends cope with cancer. Trained cancer nurses provide information, emotional support and practical advice by phone and letter.

#### **Macmillan Cancer Support**

89 Albert Embankment London SE1 7UO

Freephone 0808 808 0000

Website: www.macmillan.org.uk

Provides free information and emotional support for people living with cancer and information about UK cancer support groups and organisations.

#### **British Thyroid Foundation**

British Thyroid Foundation Suite 12, One Sceptre House Hornbeam Square North, Hornbeam Park Harrogate HG2 8BP

Tel: 01423 810 093

Website: www.btf-thyroid.org

The foundation aims to provide support and information for people with thyroid disorders. Working with medical professionals, they produce evidence based information which can be found on their website.

For further information from the Patient Information service please contact:

#### The Royal Marsden NHS Foundation Trust

Help Centre Fulham Road London SW3 6JJ

Freephone: 0800 783 7176

#### The Royal Marsden Macmillan Hotline: 020 8915 6899

You can ring the hotline 24 hours a day, 7 days a week.

Call us straight away if you are feeling unwell or are worried about the side effects of cancer treatments.

This service provides specialist advice and support to all Royal Marsden patients, as well as to their carers, and both hospital and community-based doctors and nurses caring for Royal Marsden patients.

# Notes/Questions You may like to use this space to make notes or write questions as they occur to you, to discuss with your specialist nurse, physicist or doctor

Notes/Questions			

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This booklet is evidence based wherever the appropriate evidence is available, and represents an accumulation of expert opinion and professional interpretation.

Details of the references used in writing this booklet are available on request

from: The Royal Marsden Help Centre

Freephone: 0800 783 7176

Email: patientcentre@rmh.nhs.uk

The Royal Marsden NHS Foundation Trust Fulham Road London SW3 6JJ

www.royalmarsden.nhs.uk

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The information in this booklet is correct at the time of going to print.



Printed by The Royal Marsden Print Room Surrey The Royal Marsden publishes a number of booklets and leaflets about cancer care. Here is a list of information available to you.



#### Diagnosis

- A beginner's guide to the BRCA1 and BRCA2 genes
- CT scan
- MRI scan
- Ultrasound scan
- Lynch Syndrome





#### **Treatment**

- Central venous access devices
- Chemotherapy
- Clinical trials
- Radiotherapy
- Radionuclide therapy
- Your operation and anaesthetic



## Supportive care

- Eating well when you have cancer
- Lymphoedema
- Reducing the risk of healthcare associated infection
- Support at home
- Your guide to support, practical help and complimentary therapies



# Your hospital experience

- Help Centre for PALS and patient information
- How to raise a concern or make a complaint
- Making your stay with us safe
- Your health information, your confidentiality

Patient Information

Please visit **www.royalmarsden.nhs.uk/patientinformation** where several patient information booklets are available to download.

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