



**University Hospitals
Bristol and Weston**
NHS Foundation Trust

Patient information service
Bristol Haematology and Oncology Centre
Molecular radiotherapy unit

Radioactive iodine for an overactive thyroid



If English is not your first language

We are not allowed to use family members as interpreters, so if English is not your first language, please contact the molecular radiotherapy unit to discuss whether there is a need to have an interpreter present. If you do not do this and staff consider that an interpreter is necessary, it could delay your treatment.



To discuss any of the information within this leaflet, to confirm your appointment or for any other queries please contact the molecular radiotherapy unit on 0117 3422694

Introduction to radioactive iodine

You have been given this leaflet because you have been referred for radioactive iodine as a treatment for an overactive thyroid (thyrotoxicosis), multinodular disease, or an enlarged thyroid gland (a goitre).

This treatment is given at the molecular radiotherapy unit at the Bristol Haematology and Oncology centre, which is the centre that holds the licence to store and administer the radioactive iodine. The treatment is given at an outpatient appointment, and those receiving the capsule are usually in the hospital for approximately 30 minutes.

Radioactive iodine has been used for over 50 years to treat thyroid conditions. It comes in the form of a capsule (similar in size to antibiotics) which is taken with water.

You have been referred to receive radioactive iodine treatment.

You will be receiving one of the following doses. The dose you will receive is marked.

400	600	800
Megabecquerels	Megabecquerels	Megabecquerels
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Megabecquerel (MBq) = unit of measurement for radioactivity

The standard treatment doses are either 400 or 600 MBq of radioactive iodine depending on your clinical need. Very occasionally, we may give a higher dose of 800 MBq. The radiation protection advice for each dose is different – this is described in the treatment schedules at the end of this booklet. It is very important that you read this information as it has implications for you and your family.

As the thyroid gland naturally takes up the iodine from the food we eat, once digested, the radioactive iodine is absorbed by the thyroid gland and destroys some of the thyroid tissue. The aim of the treatment is to reduce the over-activity of the thyroid gland (thyrotoxicosis) or shrink it in size (goitre).

Pregnancy and fertility

We ask that all those who receive radioactive iodine do not get pregnant or cause a pregnancy for six months following treatment. You may wish to discuss your method of contraception further with your partner or doctor before you confirm whether you will be attending for treatment.

Female patients: pregnancy, breastfeeding and fertility

It is very important that you do not have radioactive iodine treatment if you are pregnant or think there is a chance you might be.

If you are female and aged between 10 and 55 years, you will be asked to sign a form to confirm that you are **not** pregnant.

Please note that we work to very specific guidelines which do not accept the following as methods of contraception:

- ✘** barrier methods such as condoms or the cervical cap
- ✘** any spermicidal methods
- ✘** any fertility awareness methods such as body temperature monitoring or the rhythm method.

However we **will** treat you with radioactive iodine if you are within one of the categories below:

- ✓ if the treatment will be given within 10 days of the **start** of your last menstrual cycle
- ✓ if you have not been sexually active since your last period
- ✓ if you are under 55 years of age, post-menopausal and have not had a period for at least 12 months
- ✓ if you have had both your ovaries removed
- ✓ if you have had a contraceptive intra-uterine device fitted for longer than six weeks, including the Mirena coil
- ✓ you have been sterilised or your partner has had a vasectomy
- ✓ if you are taking the oral contraceptive pill, progesterone only mini pill, vaginal ring, transdermal birth control patch, depo-provera injection or contraceptive implants. You must have been on the pill as instructed for at least two months without any sickness
- ✓ those who take the mini pill but are not having periods will be asked to have a pregnancy test prior to treatment if they are sexually active.

It is important **not** to become pregnant for at least six months after radioactive iodine treatment. You may need to discuss with your own doctor how best to manage this before you attend for treatment.

We encourage you to call the molecular radiotherapy unit to discuss your personal circumstances before you attend for treatment.

If you are breastfeeding, you will need to stop at least eight weeks before beginning radioactive iodine and not start again afterwards. Radiographers will advise you about this.

The dose of radioactive iodine given to treat an overactive thyroid or enlarged thyroid gland will not affect a woman's fertility.

Male patients: pregnancy and fertility

This treatment will not affect fertility however male patients are advised **not** to cause a pregnancy for six months after radioactive iodine. You may wish to discuss with your partner or doctor how best to manage this.

CT scanning prior to treatment

If you have had a CT scan with a contrast (a drink or injection) within two months prior to the appointment date, please inform the molecular radiotherapy unit as soon as possible as we may need to delay your treatment slightly.

Preparation for the radioactive iodine treatment

Please remember to ring the unit to confirm whether or not you will attend for treatment. In the event that nobody is available to take your call, please leave an answerphone message.

Two to three weeks prior to your visit a radiographer will ring you to talk through your individual circumstances and some more general information. The radiographer will be happy to answer any questions you may have.

If you are taking amiodarone, you **must** discuss this with your endocrinologist prior to coming for treatment, as this could prevent treatment going ahead.

If you are taking propylthiouracil (PTU) tablets, please **stop taking them 14 days** before treatment.

If you are taking carbimazole tablets, **please stop taking them seven days** before your treatment.

If you are taking thyroxine tablets, please **stop taking them seven days** before treatment.

If you are taking any vitamin or mineral supplements that contain iodine or kelp, you should **stop taking them seven days** before treatment.

Please continue to take any other medications that have been prescribed for you by your doctor for other medical conditions.

On the day of treatment

Please think through travel plans and do **not** bring children or anyone who may be pregnant with you, as you will be asked to follow the radiation protection precautions immediately after receiving the treatment. This is discussed in more detail under the heading '**General precautions**' (page 11).

Before having the radioactive iodine, you should not eat or drink anything for two hours before and for one hour after.

What happens at the hospital?

When you arrive at the Oncology Centre for your treatment, please give your name to the receptionist. A radiographer will collect you and take you to the molecular radiotherapy unit where the treatment will be given.

You will be seen in an individual consultation lasting approximately 20 minutes, where the radiographer will confirm that you have read this booklet and that you have understood the radiation protection precautions you must follow after you have had the capsule.

The radiographer will answer any questions that you may have and obtain your consent.

If you are female and aged between 10 to 55 years, you will also be asked to sign a form to confirm that there is no possibility that you may be pregnant, using the criteria previously outlined in this booklet.

You will be given a yellow radiation precautions card, which you must carry with you at all times until the date that is specified on it. If you are travelling abroad within six months following your treatment we ask that you take the card with you when you travel, just in case you activate any alarms at the airport or ferry terminal.

You will be asked to wear a yellow silicone wristband for the duration of your precautions. In the unlikely event that you need medical attention you must show the yellow card and wristband to any staff looking after you.

As soon as the pre-treatment consultation is completed, you will be taken to another room within the molecular radiotherapy unit to receive the radio-iodine. You will be met by another radiographer who will ask you to confirm your name, address and date of birth and that you are happy to go ahead with the treatment.

The radiographer will confirm that you are not pregnant and ask whether you have any further questions about the treatment.

You will then be shown how to take the capsule before taking it. The capsule is about the size of an antibiotic tablet. It is coated so it

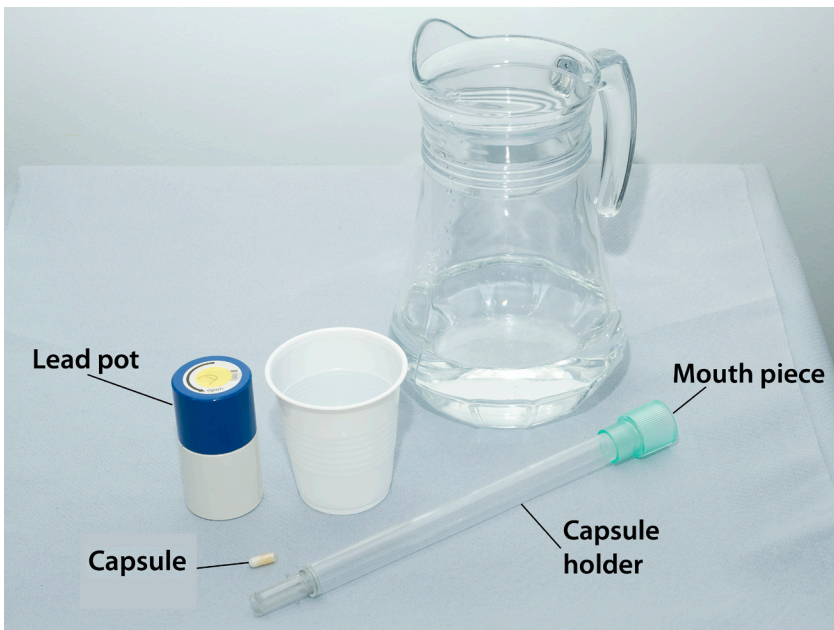


is easy to swallow. It sits in its own little holder at one end of a clear perspex tube. At the other end of tube there is a green mouthpiece.

The radiographer will show you what to do with the tube and ask you to put the green mouthpiece to your lips. Once the mouthpiece touches your lips, you will be asked to lift the tube so that the capsule runs along it and into your mouth without being handled. There will be water available to take with the capsule.

Once you have swallowed the capsule, you should leave the hospital straight away.

From the moment that you take the capsule it is important that you follow the radiation protection advice given so that every effort is made to protect your family, friends and the general public from exposure to radiation that they do not need.



As the department is on level 3 we ask that where possible patients walk back up to the ground floor to exit from the building.

Patients who are unable to use the stairs will be taken up to the reception area in a lift which the general public do not have access to.

This is to avoid being in close proximity to other members of the public and staff, to limit the radiation exposure.

Follow up

As the molecular radiotherapy unit only provides the treatment all follow up appointments will be with your referring endocrinologist. It is very important that your thyroid function is monitored closely after treatment. This is usually with your own doctor or endocrinologist.

Possible side effects of treatment

Most people notice no side effects from this treatment. A few patients may experience a recurrence of the symptoms they had when they were diagnosed with an overactive thyroid – usually five to ten days after treatment. If you get these symptoms and you have been asked **not to resume** any anti-thyroid medication after treatment (for example carbimazole or propylthiouracil or levothyroxine) please contact your endocrinologist immediately.

There is a chance that your thyroid may become underactive in the months or years after treatment. It is important that this is identified, and this is why blood monitoring is important. Your endocrinologist will have discussed your post treatment follow-up with you, but check with them if this is not clear.

A small number of patients may need to return for a repeat treatment. If it is necessary to have a repeat treatment, there needs to be at least six months between treatments, usually more.

General radiation protection precautions following treatment

You may drive yourself to and from your appointment. Please feel free to bring a friend or relative, but please do not bring children or pregnant women to the appointment.

If you are a passenger in a car, please sit in the back of the car on the opposite side to the driver on the journey home.

If you are travelling home on public transport, do not sit next to or near to a female of childbearing age or a child and do not sit next to the same person for more than one hour. Please change seats after one hour if your journey is longer.

Sleep apart from your partner (please check your schedule for how long) If you have separate beds in the same room more than one metre apart, this is fine. Please change the bedding before sharing a bed again.

Keep at least one metre's distance away from everyone. Your family will be fine if you are just passing them as you move around your home. However, do not sit next to them on the sofa or cuddle them. (Please check your schedule for how long).

Avoid places such as cafes, pubs, theatres and cinemas.

For three days after treatment

- You should drink plenty of fluids for three days after treatment as this will help to speed up the elimination of the radioiodine.
- For three days following treatment, men should also sit down on the toilet to pee rather than stand up. This avoids the possibility of splashing contaminated urine on the toilet seat and surrounding area.

- Always flush the toilet twice after use and wash your hands thoroughly.
- Keep bath/hand towels and facecloth for your own use only and shower daily.
- If you are preparing food, wash your hands frequently and keep a hand towel for your own use.
- Wash all crockery and cutlery thoroughly by hand or in the dishwasher.
- There is no need to wash your clothes separately from the main family wash.

Pets: We do not give radiation protection advice for animals.

Please be assured that the radioactivity cannot be passed on by other people to their friends or family.

Reminder

If you are taking amiodarone, you **must** discuss this with your endocrinologist prior to coming for treatment, as it may prevent treatment with radioactive iodine going ahead.

If you are taking propylthiouracil tablets, please **stop taking them 14 days** before treatment.

If you are taking carbimazole tablets, please **stop taking them seven days** before your treatment.

If you are taking thyroxine tablets, please **stop taking them seven days** before treatment.

If you are taking any vitamin or mineral supplements that contain iodine or kelp, you should **stop taking them seven days** before treatment.

Please continue to take any other medications that have been prescribed for you by your doctor for other medical conditions.

Once you have had the radioactive iodine, you MUST carry the yellow radiation protection precautions card with you at all times and wear the wristband for the length of your precautions.

Summary of radiation protection

Summary of radiation protection for **400MBq** of radioactive Iodine for benign thyroid conditions

Advice	400MBq
Keep more than one metre away from other people. Do not sleep with your partner.	Day 0 to 11
Mix with adults as usual, and children over five years, but continue to keep more than one metre away from pregnant women and children under five years.	Day 11 to 16
Mix with adults as usual, and children over three years, but keep more than one metre away from pregnant women and children younger than three years.	Day 16 to 21
Keep yellow radionuclide card with you at all times, and wear the wristband.	21 days
Keep yellow card after precautions have ended, take with you, if you leave the UK.	6 months

Summary of radiation protection

Summary of radiation protection for **600MBq** of radioactive Iodine for benign thyroid conditions

Advice	600MBq
Keep more than one metre away from other people. Do not sleep with your partner.	Day 0 to 14
Mix with adults as usual, and children over five years, but continue to keep more than one metre away from pregnant women and children younger than five years.	Day 14 to 20
Mix with adults as usual, and children over three years, but keep more than one metre away from pregnant women and children younger than three years.	Day 20 to 25
Keep yellow radionuclide card with you at all times, and wear the wristband.	25 days
Keep yellow card after precautions have ended, take with you, if you leave the UK.	6 months

Summary of radiation protection

Summary of radiation protection for **800MBq** of radioactive Iodine for benign thyroid conditions

Advice	800MBq
Keep more than one metre away from other people. Do not sleep with your partner.	Day 0 to 16
Mix with adults as usual, and children over five years, but continue to keep more than one metre away from pregnant women and children younger than five years.	Day 16 to 22
Mix with adults as usual, and children over three years, but keep more than one metre away from pregnant women and children younger than three years.	Day 22 to 27
Keep yellow radionuclide card with you at all times, and wear the wristband.	27 days
Keep yellow card after precautions have ended, take with you, if you leave the UK.	6 months

As well as providing clinical care, our Trust has an important role in research. This allows us to discover new and improved ways of treating patients.

While under our care, you may be invited to take part in research. To find out more please visit: www.uhbw.nhs.uk

Help us prevent the spread of infection in hospital. Please make sure your hands are clean. Wash and dry them thoroughly/use the gel provided. If you have been unwell in the last 48 hours please consider whether your visit is essential.

Smoking is the primary cause of preventable illness and premature death. For support in stopping smoking contact **NHS Smokefree on 0300 123 1044.**

Drinkline is the national alcohol helpline. If you're worried about your own or someone else's drinking, you can call this free helpline in complete confidence. **Drinkline on 0300 123 1110.**

To access all patient leaflets and information please go to the following address:
<http://foi.avon.nhs.uk/>

Bristol switchboard: 0117 923 0000

Weston switchboard: 01934 636 363

www.uhbw.nhs.uk



For an interpreter or signer please contact the telephone number on your appointment letter.



For this leaflet in large print or PDF format, please email patientleaflets@uhbw.nhs.uk.

