

Nuclear Medicine

# Radioactive iodine MIBG treatment

Information for patients



## What is MIBG treatment?

Radioactive iodine MIBG (also known as iobenguane or metaiodobenzylguanidine), is a medicine used to treat neuroendocrine tumours, such as phaeochromocytoma, paraganglioma, neuroblastoma, medullary thyroid cancer, and carcinoid tumours. The MIBG contains iodine-131, a form of iodine which is radioactive. After the MIBG is injected into the blood stream, it is transported to the site of cancer and taken up by the tumour cells. The iodine-131 delivers the radiation to the tumour and kills the cancer cells.

## Getting ready for the treatment

You will be asked to come to the Oncology Ward at the Churchill Hospital at 2.00pm, the day before your treatment, for the pre-admission assessment. You will be seen by the doctor and you may have a blood test and blood pressure monitoring, to check that you are well enough for the treatment.

You will be given two potassium iodate tablets to take, to prevent the treatment from affecting your thyroid. If you have not taken these tablets, you will not be able to have the treatment.

### **List of things to bring to the treatment:**

- old clothes (as these will not be able to be returned after your treatment)
- all your usual medication
- boiled sweets, squash or soft drinks
- old books/magazines (as these will also not be able to be returned after your treatment).

Please do not bring towels or slippers as these will be provided.

Please be aware that all your belongings will be checked for contamination with radiation before you leave. This is because small amounts of radioactivity will be lost in your urine and sweat after the treatment and can become attached to anything you touch. We may need to keep your belongings in the hospital for a few days after you go home. For this reason, please think carefully about bringing in personal items that you may need when you leave, such as wallets, credit/debit cards, or mobile phones.

## Admission to the ward

On the day of admission, please arrive at the Oncology Ward at 9.00am. You will be admitted by the nursing staff and you will be allocated your own room.

If you are a woman of childbearing age (12-55 years), you will be asked for a sample of urine for a pregnancy test. This is because MIBG therapy cannot be given during pregnancy, as it can harm the fetus. You will be asked to sign a form to confirm the result of the pregnancy test.

## Your room

Radioactive iodine MIBG treatment is a form of internal radiation therapy. After you receive the treatment, your bodily fluids (urine, saliva, perspiration) will contain radiation. This means you will need to remain in your room at all times after having the treatment.

Your room will have an en-suite bathroom with a toilet and walk-in shower. You will find plastic coverings on surfaces that you are likely to touch. Please don't be alarmed by this; it minimises the risk of the items in the room being contaminated with radiation, and allows us to return the rooms to normal use much more quickly.

## How is the treatment given?

MIBG is given directly into your bloodstream through a narrow tube called a cannula, which is placed into a vein in your arm. The treatment is given in the morning from approximately 10.00am and takes 2 hours to complete.

## Are there any side-effects?

Like all medicines, MIBG can occasionally cause side-effects. You may experience the following:

- nausea (feeling sick) and vomiting (being sick) within the first 24 hours
- a reduction in the number of platelets in your blood. You may not feel any different, or you may notice that you bleed and bruise more easily than usual.

If you notice either of these side-effects or have any other symptoms, please inform your doctor or nurse.

## While you are in hospital

Due to the radiation that comes out of your body, you will need to remain in hospital for 5 to 7 days. A Physicist will come to your room twice a day to take measurements of the radiation being released from your body. These measurements are taken from a distance of 2 meters, using a monitor which detects radiation. The results will allow us to work out how much radiation is left in your body and when it is safe for you to go home.

To help decrease the level of radioactivity in your body we will ask you to:

- Take a shower twice a day.
- Drink between 2 – 3 litres of fluids a day.
- Empty your bladder and bowel regularly, sitting down to use the toilet and flushing twice after use.
- Wash your hands regularly.
- Suck boiled sweets/mints to increase your production of saliva.

You should be wearing your old clothes during your stay in the ward, as these will need to be discarded after use, due to the radiation they have been exposed to.

Your meals and drinks will be served to you in your room. There

is also a tea and coffee making facility for you in the room. We will ask you to wash up all the crockery and cutlery and keep it in your bathroom, due to the risk of contamination.

The nursing staff will look after you as usual, but due to the radiation they are subject to restrictions as to how long they can stay in the room.

## Can I have visitors?

Visiting restrictions will apply due to the radiation coming out of your body. Generally, we do not encourage any visits during your stay on the ward. If someone does need to come to see you, they must contact the ward for additional instructions before they come to visit.

**Pregnant women and under 18s are not allowed to visit, as the radiation can be damaging to unborn babies and young people.**

## How can I prevent myself from getting bored?

The room has a digital TV, internet access\*, and DVD player with a selection of DVDs for you to use. There is also a direct phone line that can receive incoming calls. It is likely that any items you will be using during your treatment will become contaminated with radiation. They will need to be disposed of or stored in the hospital for some time after you go home, which is why we advise you to bring old books and magazines.

\*if you have your own BT Openzone account you can log in using this, otherwise you will need to purchase access time through [www.BTopenzone.com/buy](http://www.BTopenzone.com/buy). We advise you to purchase access time before your admission. (This is not a premium rate service and Churchill hospital does not receive any profit.)

## Leaving hospital

On the day you are due to be discharged (leave hospital) you will be asked to shower and change into your normal clothes and you will be taken to the nuclear medicine department for a post-treatment scan. Provided that the radiation measurements are sufficiently low, you will be discharged from the hospital on that day, after your doctor has seen the scan results and made necessary arrangements for medication and follow-up.

When you leave the hospital, you will still have a small amount of radioactivity in your body. You will need to avoid prolonged close contact with other people, especially small children and pregnant women. You will be advised of the exact precautions you need to take by the nuclear medicine staff when you are discharged. The length of time you will need to follow these restrictions for will be calculated from the measurements taken during your hospital stay. They will likely be for a few weeks following your discharge.

## Carry the card

You will be given a yellow instruction card and will be fitted with a yellow wristband giving details of your treatment. You should carry the card and the wristband during the time you are restricted from close contact with other people.

You should also carry the card with you if you are travelling through ports, airports and international train stations for six months after the treatment, as some of the security devices are very sensitive and can detect even trace amounts of radioactivity.

## How to contact us:

If you have any questions or concerns, please contact us on the following numbers:

### **For question about the MIBG treatment:**

Nuclear Medicine Department

(Therapy Radiographer)

Tel: **01865 235 804**

(Monday to Friday, 9.00 to 5.00pm)

### **For questions about radiation protection:**

Nuclear Medicine Physics

Tel: **01865 235 324**

(Monday to Friday, 9.00 to 5.00pm)

If you have a specific requirement, need an interpreter, a document in Easy Read, another language, large print, Braille or audio version, please call **01865 221 473** or email **[PALSJR@ouh.nhs.uk](mailto:PALSJR@ouh.nhs.uk)**

Viktorie Madhusudhan Stisova, Radiopharmacy Deputy Production Manager  
May 2015  
Review: May 2018  
Oxford University Hospitals NHS Trust  
Oxford OX3 9DU  
[www.ouh.nhs.uk/information](http://www.ouh.nhs.uk/information)

