

*Better  
Together*

## Patient information

### Radioiodine Treatment For Thyroid Cancer What is it all About?

#### Imaging Department

Royal Liverpool Hospital and Broadgreen Hospital

PIF1806 V2

## **What is Radioiodine Treatment?**

Radioiodine treatment uses a form of iodine that is radioactive (I-131). Radioiodine is specifically taken up by the thyroid cells and by virtue of the effects of radiation it helps detect and destroy thyroid tissue/cells.

## **Where else in the body does the radioiodine go?**

Most of the radioiodine is naturally taken up by the thyroid tissue. The rest of it mainly passes out of your body in urine with a little in the sweat and body fluids

## **Why do I need radioiodine treatment?**

Radioiodine treatment detects and treats any areas of residual thyroid tissue or tumour that may have been left behind following thyroid surgery.

## **The benefits of eradicating residual thyroid tissue are;**

- a) To minimise risk of local and distant tumour recurrence.
- b) To improve sensitivity of monitoring by blood tests.

## **How will this treatment be organised?**

Following thyroid surgery, the surgeon will notify the nuclear medicine department for this to be organised. You will receive a phone call from one of our specialist nurses who will talk you through the treatment and will arrange the dates for you to come to clinic and also for your treatment.

**If you have any queries their phone number is**

**Tel: 0151-706-3482.**

**Text phone number: 18001 0151 706 3482**

In the clinic you will be seen by one of the nuclear medicine physicians who will discuss with you the treatment strategy.

You may be required to undergo certain blood tests (to check whether any residual thyroid tissue is adequately stimulated). These tests will be organised by the doctor during your visit to the clinic.

### **Is there any preparation required?**

A low iodine diet is not strictly necessary. However for at least two months prior to radioiodine treatment you must not have had iodine containing preparations (certain Vitamin tablets, cough mixtures and kelp tablets) as well as X-ray contrast agents (used for angiograms and CT scans).

Thyroid hormone medication will also need to be reviewed.

### **Levothyroxine (T4)**

If you are on Levothyroxine (T4) you can continue to take these throughout however we will arrange for you to have two injections on the days prior to your treatment of thyrogen. This will be with either the district nurses or you will be advised to go to a walk in centre for administration. This will be organized for you and you may be contacted by the district nurse before you come to clinic.

### **Liothyronine (T3)**

If you are on Liothyronine(T3) you need to come off these tablets for a minimum of 10 days. This will be arranged by your doctor and will be indicated to you in the appointment letter.

**Further, if you are or could be pregnant or are breastfeeding, please notify staff receiving your appointment letter. These conditions are an absolute contraindication for radioiodine treatment.**

## **How is radioiodine given?**

Radioiodine is colourless and tasteless. You will be asked to swallow liquid or a capsule containing radioiodine either in orange juice or water. It is administered whilst you are in hospital.

A hospital bed in a single room will be arranged for you. You will be required to stay in the hospital confined to the room for about four days. The isolation room is used to limit radiation exposure to other people.

## **What does radioiodine treatment involve?**

You will be admitted to a single room in the hospital with en-suite facility. The room is equipped with a television which you will need to purchase a card for. You need to bring plenty of things to keep you occupied whilst you are in. There is a refrigerator outside of the room to store milk and water which we will provide for you.

The nuclear medicine physician will visit and talk to you again about the treatment and obtain your written consent. An anti-sickness injection may be given to you prior to radioiodine treatment to prevent potential nausea.

You will then be visited by the physicist/radiation protection officer who will bring the radioiodine capsule/liquid for you to have. You will be asked to swallow a capsule/liquid containing the Iodine-131.

You will be instructed about certain simple precautions to undertake. You will be required to stay behind the radiation barrier while you are in hospital until discharge.

You can eat and drink normally and take all your other medication (if you are on any) as usual while you are in hospital,

If you have any other needs please discuss this with the doctor.

### **Are there any side effects to radioiodine treatment?**

Radioiodine in general is safe and causes very few side effects.

In the short term you may experience some minor neck swelling and discomfort, salivary gland swelling and taste change. Occasionally you may feel nauseated 2-24 hours after having radioiodine.

Most of these side effects are temporary, well tolerated and usually go away in three to five days and can be easily controlled by appropriate medication.

In a small percentage of cases there can be late side effects of dry mouth and salivary gland swelling/dysfunction.

### **Can radioiodine treatment cause cancer?**

Although there is no direct evidence, some studies have suggested that there may be a very small risk of lifetime incidence of developing second cancers. This is more likely in patients who have multiple treatments with radioiodine. The potential risk of secondary cancer is tiny and the benefits far outweigh the risks involved in treating thyroid cancer patients with radioiodine.

### **Are there any extra risks in having children after treatment with radioiodine?**

No. Decades of experience of using radioiodine has shown no effects on the health of the children of patients who have had radioiodine. However we do ask you to avoid pregnancy, breast feeding or fathering children for 12 months after radioiodine treatment. If there are any other individual specific precautions necessary your doctor will discuss these with you.

## **Will there be any danger to my family?**

No, but you will be required to take simple precautions which will be discussed with you. These are merely to avoid any unnecessary radiation to your family members.

You will be given a card with the appropriate instructions for these prior to your discharge from hospital. Any additional precautions if necessary will also be discussed with you.

## **Are visitors allowed?**

In order to minimise radiation exposure an adult is allowed to visit the patient in the ward for up to an hour a day. But no children or pregnant women are allowed.

## **How many radioiodine treatments will I need?**

The amount of radioiodine your doctor decides to use will depend on your condition. The number of treatments also depends on the original condition and response to treatment. Generally in most patients only one treatment is required.

## **How will I be followed up after radioiodine treatment?**

You will be under long term follow-up which will involve having blood tests at regular intervals and possibly diagnostic scans.

The majority of patients will have a repeat radioiodine scan in three to six months after radioiodine treatment to ensure that you do not require further radioiodine treatment. You will then be seen regularly in clinic for blood tests and examination of your neck. These visits will be quarterly in the first year, bi-annually in the second year and then yearly thereafter

Your specific needs will be discussed with you by your nuclear medicine physician. If you have any other questions, please ask your doctor.

## **Further information**

**If you need any further information please contact the Nuclear Medicine Department**

**Tel: 0151 706 3482**

**Text phone number: 18001 0151 706 3482**

**Tel: 0151 706 4462**

**Text phone number: 18001 0151 706 4463**

### **Macmillan Cancer Support**

**Tel: 0808 808 0000**

**[www.macmillan.org.uk](http://www.macmillan.org.uk)**

**Provides information and support to anyone affected by cancer.**

### **British Thyroid Foundation**

**Tel: 01423 709 707 and 01423 709 448**

**[www.btf-thyroid.org](http://www.btf-thyroid.org)**

**Provides support and information to people with thyroid conditions.**

### **CancerHelp UK**

**[www.cancerresearchuk.org/cancer-help/type/thyroid-cancer](http://www.cancerresearchuk.org/cancer-help/type/thyroid-cancer)**

**Provides facts about cancer, including treatment choices**

**Please note that the information contained on the above websites is for general guidance only.**

## Author: Imaging Department

### Review date: June 2020

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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