



University
Hospitals Sussex
NHS Foundation Trust

Samarium -153 Therapy

Department of Nuclear Medicine

Patient information

What is Samarium Therapy?

We would like to treat the pain in your bones caused by your illness. Samarium-153 Quadramet® localises in all the areas where you experience bone-pain. It remains in these regions for many weeks, utilising ionising radiation to provide pain relief.

If you have had chemotherapy or external-beam radiotherapy in the last six-weeks or you had a reaction to the injection at your last bone scan please inform the department.

Please also inform us prior to treatment if you have problems with urinary or faecal incontinence.

Can I have Samarium therapy if I am pregnant or breastfeeding?

If there is a possibility that you are pregnant or if you are currently breastfeeding please inform the department before your appointment as we will likely have to re-schedule.

Can I bring someone with me?

Whenever possible, you should attend your appointment alone, unless you need a carer to support any additional needs.

How long will my appointment take?

Please allow up to 5 hours for your appointment.

What will happen at my appointment?

Prior to the treatment, our doctor will sit down with you and explain more about the therapy, and you will have the opportunity for them to address any queries you may have. They will discuss possible side effects, and obtain consent to proceed with the treatment.

You will be given an injection of Samarium-153 Quadramet® into

one of the veins in your hands or arms. You will then need to stay in the department for four hours before you return home. During this time, a series of measurements will be taken by our physicists to determine the radiation dose-rate.

You may feel a slight increase in pain for the first two or three days following injection. After two weeks, you should begin to feel the pain diminish. This should last for several months.

What happens after my appointment?

After the appointment you can resume all usual activities. Eat as normal and keep well hydrated.

- We will be making you slightly radioactive – as such, you will need to follow certain social-distancing restrictions for a period of time. This will include sleeping separately from a partner. Typically, this is less than one-week but may vary from patient-to-patient. The measurements taken during your time in the department will allow the team to determine exactly how long this period will need to be.
 - If you have young children or pregnant friends/family, the restriction period is likely to be longer than one-week. This is to avoid them receiving any unnecessary radiation exposure.
- There will be a restriction on long distance travel for a short period because of the radiation exposure to others.
- Take extra care with hand and toilet hygiene, flush the toilet twice after use.
- If you are concerned about any young children who may be sharing your toilet facilities, then the added precaution of wiping the toilet seat after use may be useful.
- Soiled clothes should be washed separately, and as soon as it is practical to do so.
- We advise the use of effective contraceptive methods during and up to six months after treatment.

Are there any risks with this procedure?

The radioactive tracer administered will expose you to a small amount of ionising radiation, consistent with the desired therapeutic outcome.

The risks from this are low and are greatly outweighed by the benefits of having the Samarium-153 therapy. However, if you have any concerns at all, please ask to speak with the duty physicist, either before your appointment or on the day.

Contact details

Royal Sussex County Hospital (RSCH)

Nuclear Medicine Department

Louisa Martindale Building
Royal Sussex County Hospital
Eastern Road
Brighton
BN2 5BE

Telephone: 01273 696955 Ext: 64381 or 64382

This leaflet is intended for patients receiving care in Brighton & Hove or Haywards Heath

Ref. number: 2041.1
Publication date: 03/2023
Review date: 03/2026

© University Hospitals Sussex NHS Foundation Trust Disclaimer:
The information in this leaflet is for guidance purposes only and is in no way intended to replace professional clinical advice by a qualified practitioner.