



**University
Hospitals Sussex**
NHS Foundation Trust

Ra-223 Dichloride Therapy

Department of Nuclear Medicine

Patient information

What is Ra-223 dichloride therapy?

Prostate cancer is the most common cancer among men in the UK. Radium-223 dichloride is a type of treatment that is used when prostate cancer has spread to the bone. The treatment uses a type of radiation called alpha particles which may kill cancer cells, reducing pain and possibly increasing survival time. It only travels a short distance within the bone, which means it is less likely to affect surrounding healthy tissue and causes fewer side effects than some other types of radiotherapy or chemotherapy.

The treatment is delivered as a course of six injections, with one every four weeks.

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

If you have had a fracture in the last month or radiotherapy in the last two weeks before your appointment date, please contact us as we may need to change your appointment.

Can I bring someone with me?

Please feel free to bring someone with you for your appointment.

How long will my appointment take?

Please allow two hours for your first appointment and one hour for the subsequent appointments.

Do I need to stop my medication?

You will need to stop Abiraterone or Enzalutamine seven days before the treatment. You will also need to stop calcium supplements (e.g Adcal) and bisphosphonates (e.g. Zoledronate or Zometa) at least seven days prior to therapy and do not restart them for seven days after each treatment.

What happens before my appointment?

Ten days before each treatment you will need to have a blood test. This can be done at your local hospital or your GP's practice. A blood form will be sent to you by post or be given to you each time you attend for your treatment appointment.

Please let us know as soon as possible if you are unable to attend your treatment, so we can make suitable arrangements.

Drink plenty of water. Please be well hydrated (at least 2-3 glasses) before, during and after the appointment.

What will happen at my appointment?

At your first appointment you will have a consultation with our Doctor. They will explain more about the therapy, and you will have the opportunity to ask any questions you may have. A consent form will be signed and a copy will be given to you.

After having your consultation you will be taken to our injection room to have your treatment done by one of our senior Technologists.

A cannula will be placed into a vein in your hand. Then you will be given a small injection of radioactive liquid (see picture below). The injection generally will be given slowly, over about one minute.



After having your injection for the first time you will need to wait in our waiting room for about ten minutes. For the following five injections you can return home immediately after your injection.

You will also be given a blue card that you must keep with you at all times until eight weeks after your final injection. Please bring the blue card with you as we will update it with the treatment date each time.

The senior Technologists will be following your progress during your next five treatments. They will be checking your general well-being, pain level, and any side effects that you might have felt during your previous treatment.

What happens after my appointment?

After your treatment you have no restrictions regarding social contact with others.

- Eat as normal and keep well hydrated.
- We only ask you to take extra care with hand and toilet hygiene.
- Sit down to urinate for the first 48 hours following treatment.

- As the main route of excretion from the body is via the faeces, you should flush the toilet twice in this instance, for a week following the treatment.
- If you are concerned about any young children or others 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.
- Due to the potential effects on spermatogenesis (sperm formation), patients must use effective contraceptive methods during and up to six months after treatment. Their female partners of reproductive potential must use a highly effective contraceptive method during and up to 6 months after completing treatment.

If you feel unwell after your treatment and need to seek medical advice please inform them that you are having this treatment as the radioactivity injected might still be present in your body. This will not affect your ability to receive emergency care.

Are there any side effects with this procedure?

Radium-223 dichloride can cause a temporary increase in pain (called pain flare). This may last for a few days or up to 1-2 weeks before it gets better. If you find this occurs please take your pain medication/ anti-inflammatories. If any additional pain relief is needed for this short period please contact your GP, Macmillan Nurses, or Hospice.

Radium-223 dichloride can lead to a decrease in your blood counts. If your red cells are low we will need to arrange a blood transfusion.

Another possible side effect is diarrhoea, which may last for a few days or up to 1-2 weeks. If severe for longer than 3 days please contact your GP and let us know.

Are there any risks with this procedure?

The risks from this radiation are very low and the benefits of having Ra-223 dichloride therapy greatly outweigh the risk.

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