Radium 223 (Ra223) for the treatment of bone metastases from prostate cancer
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 radio-isotope department to discuss whether there is a need to have an interpreter present. If you do not do this, and staff consider an interpreter necessary, it could delay your treatment.

Telephone: 0117 342 2694.

Radium 223 (Ra223) for the treatment of bone metastases

You have been referred to the isotope unit at the Bristol Haematology and Oncology Centre (BHOC) for treatment of your bone metastases with a radioactive substance called radium.

Once the decision has been made for you to have treatment, a radiographer will ring you to discuss treatment with you. You will then be sent an appointment letter listing all your appointments. Treatment is given as an outpatient, with appointments usually taking around 30 minutes. Treatment is given every four weeks and, depending on how you tolerate and respond to the radium 223, a maximum of six treatments will be given.

This is an effective treatment for bone pain in patients with bone metastases from prostate cancer.

This leaflet will describe the treatment, possible side effects and the precautions that we would like you to follow after your treatment.
What is radium 223 and when is it used?

Radium 223 is a radio-isotope which is used for treatment. Some men with prostate cancer may develop bone metastases (when the cancer spreads to bones), which can become painful. If the treatment which has been used to control your disease becomes less effective, your doctor may decide to treat you with radium. When the isotope is injected, it behaves like the calcium in your body and is absorbed by the bones. This then delivers radiation directly to the bones, and should help to give relief from pain.

Preparation for treatment

About 10 days before each treatment, you will need to come to the BHOC for a pre-treatment assessment. At this visit you will be asked some questions about your health, have a blood sample taken, and you will be weighed.

On the day of treatment

You may bring a relative or friend with you to the treatment appointments. On arrival, you will be escorted to the isotope unit, where you will be seen by radiographers. After checking that you are happy to proceed with treatment, a small needle or cannula will be placed in your arm and the radium will be given to you by a slow injection. The needle or cannula will be removed from your arm before you leave. You can leave the hospital straight after the injection has been given.

You will be given a small blue card to carry at all times for one week after treatment. The card has daytime and out of hours phone numbers, which are also printed at the end of this leaflet.
What are the side effects of radium 223?

The radium is absorbed into the areas of the bone metastases, which can sometimes cause pain to worsen about 24 to 36 hours following the injection. This can last for about 36 to 48 hours. It is important that you increase your painkillers to cover this period, if required. Your pain should then improve, but it is important that you reduce your painkillers carefully.

This treatment can affect your blood cells, which may lead to symptoms such as fatigue, unusual bruising, or more bleeding than usual after an injury. You may have an increased risk of infection, so try to avoid crowds or close contact with people who are unwell. Please report a temperature of 38°C or higher immediately to the acute oncology ward D603 at the oncology centre – telephone number 0117 342 2011.

Previous studies have shown that there is a possibility of the following:

- some diarrhoea and nausea or vomiting after treatment. If these occur, they should be of short duration. However, if you notice black, tarry stools, or blood in your stools, you should tell your GP promptly

- you may have fewer red blood cells than normal in your blood (anaemia), which may require a blood transfusion

- an injection site reaction – if this should occur, you should tell the isotope unit promptly

- although an uncommon side effect, you may experience pain, swelling, numbness of the jaw, a ‘heavy jaw feeling’, or loosening of a tooth (osteonecrosis of the jaw). You are more likely to experience this if you have received bisphosphonate treatment in the past.
The treatment will have no effect on your ability to drive or to use machinery. You can eat normally. We would ask you to drink plenty of fluids for 24 to 48 hours after the injection.

Are there any radiation protection restrictions?

The radium is absorbed into the bones and emits radiation as it decays. During the first week after treatment, there may be some radioactivity in your body fluids, particularly your urine and stools, so there are a few precautions that we would like you to follow for the week following treatment:

• there are no restrictions on normal contact with other people immediately after treatment

• when passing urine, we would like you to sit on the toilet rather than using a urinal, and flush the toilet twice. Always wash your hands very thoroughly

• if any body fluids need to be handled, particularly urine or stools, please use medical gloves (we can provide these if necessary) to clean up, using tissues, and flush the tissues away

• immediately wash any stained bedding or clothes separately from other items, and rinse them thoroughly

• avoid having any tests or samples taken of your stools for the first week after treatment, unless considered necessary. Contact the isotope unit for advice if necessary

• if you use a catheter, please let the radiographers know before you attend for treatment, as they will give you further advice about this

• if you are sexually active, please use a condom for the first week after each injection, as small amounts of radioactivity
may be present in bodily fluids. You should also avoid causing a pregnancy for six months after treatment

- get plenty of rest and eat well

- we will give you a contact card to carry for one week after each treatment detailing the treatment that you have received. You should show this card to any medical staff you have contact with, so that they know that you have received treatment with radioactivity

- if you die within four weeks after a treatment, there may need to be a delay before your body can undergo a post-mortem examination or be cremated, due to residual levels of radioactivity. In some cases this delay might need to be as long as three to four weeks. It is important that your family are aware of this so that they can share this information with the people caring for your body.

If you have any queries, please contact the isotope unit on 0117 342 2694.

If no one is available, please leave a message and we will return your call as soon as we can.

Outside working hours, please contact the acute oncology ward D603 on 0117 342 2011.

For further information, please visit:

www.macmillan.org.uk

www.cancerresearchuk.org

www.prostatecanceruk.org
Please note that if for any reason you would value a second opinion concerning your diagnosis or treatment, you are entirely within your rights to request this.

The first step would usually be to discuss this with the doctor or other lead clinician who is responsible for your care.

Smoking is the primary cause of preventable illness and premature death. For support in stopping smoking contact Smokefree Bristol on 0117 922 2255.

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.uhbristol.nhs.uk/research-innovation or call the research and innovation team on 0117 342 0233.

For access to other patient leaflets and information please go to the following address:

www.uhbristol.nhs.uk/patients-and-visitors/information-for-patients/.

Hospital switchboard: 0117 923 0000  
Minicom: 0117 934 9869  
www.uhbristol.nhs.uk

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

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