

A large, stylized teal graphic on the left side of the page, composed of several concentric, curved segments that resemble a partial rainbow or a stylized letter 'C'.

Use of gold markers in the treatment of prostate cancer with radiotherapy

Radiotherapy

A guide for patients and carers

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As part of the preparation for radiotherapy to the prostate, your oncology doctor has recommended that you have gold markers implanted into the prostate gland. This leaflet will explain why we use gold markers (known as fiducial markers), the procedure and aftercare.



Why use markers?

Markers are placed into the prostate as preparation for external beam radiotherapy (radiation delivered from outside the body). Their use allows us to:

- Ensure we can target the prostate with great accuracy
- Reduce the amount of tissue around the prostate (used as a safety margin) which receives the same dose as the prostate. This will help to reduce side effects during treatment and in the long term; see 'Radiotherapy to the Prostate' leaflet

The markers are very small, just three millimetres long, and made of gold. The markers are permanent and cause no problems once they are in position. They don't interfere with treatment and you should be unaware of their presence. It is safe to have MRI scans and they don't interfere with airport security scanners.

Three markers are used and they are implanted into the prostate. This will involve a short visit at Clatterbridge Cancer Centre - Liverpool. The gold marker implant will take place at least one-two weeks before the planning CT scan, (used to design your radiotherapy), to allow them to settle in place. The markers, along with the prostate and other organs/structures, are clearly seen on the planning CT scan.

Pre-assessment

About two weeks before the procedure, we will send a letter giving you the details of when to expect a telephone call from us. We will talk to you about what to expect and ask you a few questions; please have a list of any medications and a pen and paper to hand to note any changes that are required. The call takes about 15 minutes.

Medication taken to thin the blood

If you take any medications to thin your blood (anticoagulants), we will give you instructions about temporarily stopping their use.

What to expect when you attend

The procedure is similar to a prostate biopsy and takes only a few minutes. The majority of men report the insertion of the markers results in far less discomfort in comparison to the biopsy. You will be able to drive yourself to the Centre and home again. (If you had a lot of discomfort with the biopsy, your doctor may offer a short general anaesthetic. In this case, you cannot drive for 24 hours afterwards).

You need to arrive one hour pre-procedure. Before the procedure, it is necessary to start a short course of antibiotics. Some patients are given the prescription for their antibiotics when they see their oncology doctor in clinic. If this is not the case for you, we will supply this medication on the day. We will also ask you to use a small enema, which clears the rectum (back passage) of any gas or solids.



Usually, we use a local anaesthetic. A rectal ultrasound probe will be inserted into your rectum followed by a needle used to insert the markers. Following an assessment, you can leave soon afterwards.

Ensure you complete the short course of antibiotics as prescribed.

What to expect following the procedure

This procedure is generally well-tolerated with few problems and the overall risk is lower than for the prostate biopsy. Major complications are rare and include a small risk of developing a urine and/or blood infection (septicaemia). The use of antibiotics helps to reduce the risk of infection though, occasionally, the infection may still occur in spite of this. It is important to take all the antibiotics we give you and seek help if you feel unwell.

The symptoms of urine infection are pain when you pass urine, passing urine urgently and frequently, smelly urine and feeling unwell.

The symptoms of septicaemia are similar to flu; a high temperature or feeling feverish; fast heart beat and fast breathing. The symptoms usually develop quickly and can progress into a serious condition.

If you develop any of these symptoms during the week after the procedure, you may need urgent medical attention; please contact The Clatterbridge Cancer Centre Hotline 0800 169 5555 for advice.

Your call will be answered by a dedicated nurse advisor. This line is available 24 hours a day, 7 days a week.

You may feel some discomfort in your rectum for a few days. There can be bleeding from the rectum or blood in the urine. This usually is not heavy and settles over a few days. You can also have blood in the semen for a few weeks. You don't need to do anything about the bleeding as long as it isn't heavy. If the bleeding is heavy, please contact our hotline service.

In the unlikely event that you are unable to pass urine, you should seek urgent medical attention at your local A & E department.

When and how are the markers used?

When on the treatment bed, we will take x-ray images of you. The gold markers are clearly seen on the images. This tells us exactly where the prostate is, as the prostate itself does not show up on the x-rays. This allows us to fine tune the position of the radiotherapy beams each day before we treat you. The measurements and any adjustments are done by the radiographers from outside the room. The checking process only takes a minute or so and you should lie still and breathe normally throughout, as treatment will be given immediately afterwards. You may notice that the treatment bed moves slightly just before we treat you. This is the fine tuning and known as Image Guided Radiotherapy.

The total time inside the treatment room is usually about 10 minutes and the radiotherapy delivery only takes a minute or so.



Contact details

The Clatterbridge Cancer Centre NHS Foundation Trust

0151 556 5000 or www.clatterbridgecc.nhs.uk

Admissions team

0151 556 5035/5551

Prostate Advanced Nurse Practitioner in Prostate Cancer

0151 556 5932/5829

Prostate Cancer UK

www.prostatecanceruk.org or 020 8222 7622

Out with Prostate Cancer

Support group for gay and bisexual men with prostate cancer

www.outwithprostatecancer.org.uk or 07764 741366

Macmillan Cancer Support

www.macmillan.org.uk or telephone: 0800 808 0000

Clatterbridge Cancer Centre - Wirral 0151 556 5570

Clatterbridge Cancer Centre - Aintree 0151 556 5959

Other resources

The Clatterbridge Cancer Centre Radiotherapy booklet, Radiotherapy to the Prostate and Prostate Cancer and Preparation prior to radiotherapy planning and treatment leaflets are available from staff or on our website (www.clatterbridgecc.nhs.uk)

How we produce our information

All of our leaflets are produced by staff at The Clatterbridge Cancer Centre and this information is not sponsored or influenced in any way. Every effort is made to ensure that the information included in this leaflet is accurate and complete and we hope that it will add to any professional advice you have had. All our leaflets are evidence based where appropriate and they are regularly reviewed and updated. If you are concerned about your health in any way, you should consult your healthcare team.

We rely on a number of sources to gather evidence for our information. All of our information is in line with accepted national or international guidelines where possible. Where no guidelines exist, we rely on other reliable sources such as systematic reviews, published clinical trials data or a consensus review of experts. We also use medical textbooks, journals and government publications.

References for this leaflet can be obtained by telephoning 0151 556 5570.

If you need this leaflet in large print, Braille, audio or different language, please call 0151 556 5570.

If you have a comment, concern, compliment or complaint, please call 0151 556 5203.

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