Gold seed marker insertion for radiotherapy to the prostate

This leaflet gives you information about having gold seeds inserted into the prostate gland. It explains why this procedure is used and what you can expect.

What are gold seed markers and why should I have them inserted?
Gold seed markers are used to improve the accuracy of radiotherapy to the prostate. The prostate gland can change position daily so conventional radiotherapy to the prostate includes an area around the prostate to compensate for this movement; this often includes part of the rectum and bladder. By implanting three gold seeds into the prostate we are able to locate its exact position before radiotherapy is delivered, thereby treating less bladder and rectum and minimising the unwanted side effects. These seeds are identified via x-rays every time you come for your radiotherapy. This allows the radiographers to position the treatment couch in a way that ensures more targeted treatment of the prostate by the radiation beams.

The procedure is done under local anaesthetic (you will stay awake but feel no pain). For more information about anaesthetic, please ask staff for a copy of our Having an anaesthetic leaflet.

What are the risks?
There are small risks associated with seed insertion, such as:
- **Infection.** This is more common in men who have undiagnosed prostatitis. Usually, taking antibiotics before the procedure prevents an infection from developing.
- **Bleeding into the urethra or bladder.** This can cause a blood blister (haematoma), an inability to urinate, or a need to urinate often.
- **Bleeding from the rectum.** You may experience a small amount of bleeding from your rectum for two weeks after the test.
- **An allergic reaction to the medicines,** such as the anaesthetic, used during the procedure (affects less than one out of every 1,000 patients treated).

Are there any alternatives?
There are no alternatives to gold seed marker insertion. If you choose not to have the gold seed markers inserted, you will still be able to have conventional radiotherapy but it may not be as accurate.
Before the seed insertion procedure

Before you undergo the procedure you should let the doctor, nurse or radiographer know if you:

- have allergies to any medicines, including anaesthetics
- are taking any medicines, particularly antibiotics
- have an artificial heart valve
- have or have ever had bleeding problems
- are taking any antiplatelet medicines (for example aspirin or clopidogrel) or any medicines that thin the blood (for example warfarin) as these may need to be withheld temporarily before the procedure.

Call 020 7188 8244 for advice as soon as you get your appointment letter.

Giving my consent (permission)

We want to involve you in decisions about your care and treatment. If you decide to go ahead, you will be asked to sign a consent form. This states that you agree to have the treatment and you understand what it involves.

You should receive the leaflet, Helping you decide: our consent policy, which gives you more information. If you do not, please ask a member of staff caring for you for a copy.

What happens during the procedure?

The three gold seeds are inserted into the prostate at least two weeks before the radiotherapy planning CT scan. About one hour before the seed insertion, you will be given a dose of antibiotics which will help to prevent any infection.

Once in the examination room, you will be asked to take off your trousers and pants, and lie on your left hand-side with your knees tucked against your chest. If you find this position difficult, let the doctor or radiographer know before the procedure.

In the same way your prostate biopsy was carried out, a transrectal ultrasound machine (which uses sound waves to make an image of the prostate) is used to identify the different areas of the prostate.

During the seed insertion, the probe (about the size of a fat finger) is covered in gel and then inserted into the rectum. A very fine needle is then passed down the length of the probe and an anaesthetic liquid is injected into the small space around the prostate to reduce the discomfort you may experience during the procedure. You should feel no more than a small stinging sensation when this liquid is injected.

The seeds are inserted using a very fine needle into each end of the prostate and into the middle (three in total). An antibiotic suppository is then inserted into your back passage to help reduce the risk of infection after the procedure.

The seed insertion takes around 10 minutes from start to finish.

Will I feel any pain?

You may feel a dull pressure and a brief sharp pain as the needle is inserted into the prostate gland. You may also feel some pressure in the rectum while the ultrasound probe is in place.
What happens after the procedure?
Following the seed insertion, you will be asked to avoid strenuous activities for about twenty-four hours. You may experience some mild discomfort in the rectum area for one to two days and you will need to take an antibiotic for three days to prevent infection.

You will notice some blood in your urine and in your stools for up to two weeks. You may also have some discoloration of your semen for up to six weeks after the procedure.

Following the procedure you should:
- Avoid alcohol for 24 hours as this interacts with the suppository given at the end of the procedure.
- Drink plenty of non-alcoholic fluids whilst there is blood in the water.

Go to your local A&E department if:
- your pain increases
- you have a fever higher than 100.4 °F (38 °C)
- you are unable to urinate within eight hours
- you start to pass large clots of blood
- you have persistent and heavy bleeding.

Will I have a follow-up appointment?
Your next appointment to have your radiotherapy planning CT scan will be about two weeks after the gold seed marker insertion.

Key points to remember
- The procedure will be carried out under local anaesthetic in the outpatient department and takes about 10 minutes to complete.
- Tell the doctor or radiographer if you are allergic to any medicines, or take any antiplatelet medicines or medicines to thin your blood (especially warfarin or clopidrogel).
- You will need to take antibiotics for three days after the procedure.
- Avoid alcohol for 24 hours afterwards.
- Expect some bleeding in your water and back passage for up to two weeks, and in the semen for up to six weeks. You will need to drink plenty of fluids to help clear this up.
- If you are unable to pass water following the procedure, please attend your nearest A&E department (this happens to about one in 50 men).
- You will not receive any additional radiation compared to standard treatment.

Contact us
If you have any questions or concerns regarding the insertion of the seeds, please contact the prostate cancer nurse specialist on 020 7188 7339, Monday to Friday 9am to 5pm.

If you have any questions or concerns regarding the radiotherapy treatment, please contact the treatment review radiographer on 020 7188 4220, Monday to Friday 9am to 5pm.

Out of hours, please go to your local A&E department.
Pharmacy Medicines Helpline
If you have any questions or concerns about your medicines, please speak to the staff caring for you or call our helpline.
t: 020 7188 8748 9am to 5pm, Monday to Friday

Patient Advice and Liaison Service (PALS)
To make comments or raise concerns about the Trust’s services, please contact PALS. Ask a member of staff to direct you to the PALS office or:
t: 020 7188 8801 at St Thomas’  t: 020 7188 8803 at Guy’s  e: pals@gstt.nhs.uk

Knowledge & Information Centre (KIC)
For more information about health conditions, support groups and local services, or to search the internet and send emails, please visit the KIC on the Ground Floor, North Wing, St Thomas’ Hospital.
t: 020 7188 3416

Language support services
If you need an interpreter or information about your care in a different language or format, please get in touch using the following contact details.
t: 020 7188 8815  fax: 020 7188 5953

NHS Choices
Provides online information and guidance on all aspects of health and healthcare, to help you make choices about your health.
w: www.nhs.uk

Become a member of your local hospitals, and help shape our future
Membership is free and it is completely up to you how much you get involved. To become a member of our Foundation Trust, you need to be 18 years of age or over, live in Lambeth, Southwark, Lewisham, Wandsworth or Westminster or have been a patient at either hospital in the last five years. To join:
t: 0848 143 4017  e: members@gstt.nhs.uk  w: www.guysandstthomas.nhs.uk