

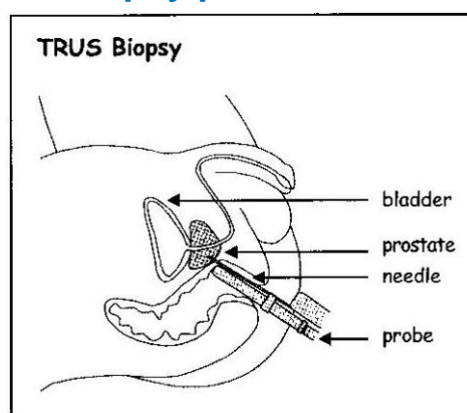
## Prostate Biopsy Procedure: Transrectal Ultrasound (TRUS) and FUSION

### Why have I been given an appointment for a Prostate Biopsy Procedure?

Using the information we have regarding your PSA blood test, MRI scan and DRE (digital rectal examination) you are being offered a prostate biopsy procedure. This is so small tissue samples can be taken and examined under a microscope for the presence of cancer. We use two very similar methods according to what your MRI scan has shown. The clinician will inform you on the day of your biopsies which procedure we will undertake. Biopsies of the prostate are advised when there is a suspicion of prostate cancer.

### What is a Transrectal Ultrasound (TRUS) Prostate Biopsy procedure?

A trans-rectal ultrasound scan uses sound waves to make an image of the prostate. An ultrasound probe is placed into the rectum (back passage) and the image is shown on a small screen similar to a television. Guided by the ultrasound image biopsies (small tissue samples) will be taken from different areas of the prostate.



### What is a FUSION Prostate Biopsy procedure?

For this procedure images taken when you had an MRI of your prostate are “fused” with the trans-rectal ultrasound image in order for biopsies to be targetted at a specific area identified on your MRI scan.

### What are the alternatives?

- Further surveillance. This involves repeating a PSA blood test at regular intervals to monitor any changes in your PSA level. The clinician will discuss this with you.
- Patients not able to tolerate a transrectal procedure using local anaesthetic can have this performed under a general anaesthetic on another day in theatres.
- Transperineal ultrasound-guided prostate biopsies. Multiple prostate biopsies are taken under general anaesthetic in main theatres via the perineum (skin between the scrotum and anus) guided by ultrasound. This is undertaken to target areas of the prostate that are difficult to reach via the rectum. The clinician will inform you if this is appropriate.

### What are the potential risks and side effects?

- You may pass blood stained urine (with or without clots) for up to a week after your prostate biopsies
- Rarely, a small blood clot may cause a blockage to the passage of urine. If this happens, you will need to go to hospital to have a catheter passed into the bladder to let urine drain.
- You may pass blood stained stools when opening your bowels for up to a week after your prostate biopsies.

- You may pass blood stained semen when you ejaculate for up to a month or more after your prostate biopsies.
- If you have pain or burning when you pass urine you should visit your GP as you may have a urine infection and need further antibiotics.
- Rarely patients may experience temporary problems with erections due to bruising.
- False negative result – even when no cancer cells are detected in the biopsy samples there may be some cancer cells in the prostate.

Rarely, despite having antibiotics on the day of your biopsy procedure, you may get an infection of the prostate, urine, or blood. This is because the biopsy needle has to pass through the rectum (which normally contains lots of bacteria), before it reaches the prostate.

**If you develop any of the following within 24 to 72 hours, or possibly up to one week, of having the biopsies taken:**

- **High temperature (over 38 C or 100 F)**
- **Shivering**
- **Sweating**
- **Inability to pass urine**

**You may need to be admitted for antibiotics to be given into a vein.**

**Patients should ring the hospital switchboard 0300 131 4500 and ask to speak to the Michelham Ward Ext 770568 for advice.**

### **What are the expected benefits of treatment?**

The prostate biopsies are sent to the laboratory to be examined for cancer cells. If necessary, treatment may then be commenced. The early detection of prostate cancer and subsequent treatment may prevent the disease from progressing.

### **What should I do before I come into hospital?**

- **On the day of the procedure you can eat and drink. Please read the antibiotic details carefully – you should avoid dairy products two hours before and after taking the antibiotic plus avoid products containing zinc and iron.**
- You will have been given antibiotic treatment to take prior to the appointment. Please take as instructed.
- If you are taking anticoagulant drugs such as **Warfarin** or **Clopidogrel** or **anything else**, please inform the department prior to your appointment. You will need to stop taking these and will be advised when to stop them once we know it is safe for you to do so. Take all other medications as normal.
- If you are on warfarin you will need an INR blood test on the day of the procedure. This will be done on arrival at hospital. You will be advised what time to attend. You should expect to be in hospital at least an hour longer than the normal procedure time.

### **Where will the procedure take place?**

The procedure is undertaken in a clinic room, not in theatres. Your appointment letter will tell you where you need to go to book in. **Please bring a mid-stream urine specimen in a sterile container with you.**

Prior to the procedure you will see the nurse who will check your previous medical history and your current medications. The procedure will be explained again and you will have the opportunity to ask questions. Your urine sample will be tested to ensure you do not have a urinary infection.

You will then see the doctor who will review all your test results and discuss the procedure with you. You will be asked to sign a consent form for the procedure; however, you may at any time withdraw your consent.

The doctor will first examine your prostate via your back passage with a gloved finger before inserting the lubricated ultrasound probe. You may feel a pressure on your bladder and have the feeling of wanting to pass urine whilst the probe is in position. Local anaesthetic will be injected into the prostate, you may feel an initial sharp scratch but the area will quickly feel numb.

Once the doctor has determined the size and shape of your prostate using the ultrasound they will proceed to take the TRUS biopsies.

If you are to have a FUSION biopsy procedure there is additional equipment to set up. An arm will be positioned above your hip. This is how we track the position of the probe relative to the MRI image. It takes just a few minutes longer to set up.

To take biopsies a needle fixed to a spring-loaded mechanism is passed through the ultrasound probe and into your prostate. The number of biopsies taken may vary between two and twenty. The nurse will demonstrate to you the noise that the biopsy gun makes prior to any biopsies being taken.

### **Will I have an anaesthetic?**

The local anaesthetic (usually lidocaine) is injected via a needle passed through the ultrasound probe directly into the prostate. This is a very effective form of pain relief.

An alternative form of pain relief is Entonox (gas and air). This will be available if you have an allergy to lidocaine. Should you require this please contact the department ahead of your appointment to ensure we have obtained a supply for you. Should this be used, the side effects will be explained to you.

### **Will I have antibiotics for the procedure?**

You will be prescribed antibiotic therapy for this procedure. This is to help prevent you developing a serious infection. Please take it as prescribed.

**Please note these antibiotics may cause you drowsiness. It is advised that you arrange for someone to bring you to your appointment and to take you home after the procedure.**

### **How will I feel afterwards?**

Patients do not report feeling discomfort immediately afterwards. If, however, once the local anaesthetic wears off you experience discomfort you may take your own preferred pain relief, e.g. paracetamol.

### **How long will I be in hospital?**

Your appointment time is when you will be pre-assessed by a nurse. You should expect to be in the department for around two hours allowing for recovery time after the procedure.

## What should I do when I go home?

- Take the remainder of the day off work.
- eat and drink normally, except avoiding dairy products two hours before and after the second antibiotic tablet
- Avoid any strenuous exercise or excessive straining for a few days after the biopsies; this will reduce the risk of any bleeding complications.
- Avoid sexual intercourse for a few days after the biopsies have been taken.
- Take a simple painkiller such as paracetamol regularly for a day or two if you experience discomfort.

## When and how do I receive the results of the biopsies?

You should be telephoned one to two weeks after your biopsies and informed when your appointment is for your results, normally within another one to two weeks.

We would recommend you bring a relative or friend to your results appointment.

## Sources of information

If you require additional information please telephone:

Urology Investigation Suite - Eastbourne DGH - Tel: 0300 131 4500 Ext: 770640

Patient information leaflet: Transrectal ultrasound guided biopsies of the prostate gland.  
British Association of Urological Surgeons

## Important information

The information in this leaflet is for guidance purposes only and is not provided to replace professional clinical advice from a qualified practitioner.

## Your comments

We are always interested to hear your views about our leaflets. If you have any comments, please contact the Patient Experience Team – Tel: 0300 131 4731 or by email at: [esh-tr.patientexperience@nhs.net](mailto:esh-tr.patientexperience@nhs.net)

## Hand hygiene

The trust is committed to maintaining a clean, safe environment. Hand hygiene is very important in controlling infection. Hand sanitiser is widely available at the patient bedside for staff use and at the entrance of each clinical area for visitors to clean their hands before and after entering.

## Other formats

**If you require any of the Trust leaflets in alternative formats, such as large print or alternative languages, please contact the Equality and Human Rights Department.**

**Tel: 0300 131 4434 Email: [esh-tr.AccessibleInformation@nhs.net](mailto:esh-tr.AccessibleInformation@nhs.net)**

After reading this information are there any questions you would like to ask? Please list below and ask your nurse or doctor.

---

---

## Reference

Written by: Susan Crosby-Jones, Matron, Urology Investigation Suite

The following clinicians have been consulted and agreed this patient information:

Mr Steve Garnett, Lead Consultant Urologist, Mr Shwan Ahmed, Consultant Urologist, Alison  
Gidlow, Urology Nurse Specialist

Next review date: September 2023

Responsible clinician/author: Susan Crosby-Jones, Matron, Urology Investigation Suite