

Urology department

Transrectal prostatic ultrasound and transperineal biopsy

What is the evidence base for this information?

This leaflet includes advice from consensus panels, the British Association of Urological Surgeons, the Department of Health and evidence-based sources; it is, therefore, a reflection of best practice in the UK. It is intended to supplement any advice you may already have been given by your urologist or nurse specialist as well as the surgical team at Addenbrookes. Alternative treatments are outlined below and can be discussed in more detail with your urologist or specialist nurse.

What does the procedure involve?

This procedure involves using an ultrasound probe, inserted via the back passage, to scan the prostate. Biopsies are taken through the skin behind the testicles (the perineum) using a special grid shown below. The sampling is targeted and the number of samples taken depends on the size of the prostate and the number of target lesions, usually ranging from 24 to 36 samples.

The reason this approach is adopted is because you may have already undergone a number of biopsies previously (via the rectum) which have not identified the cause of your elevated PSA. Transrectal biopsies, as you have had done before, carry a greater risk if performed in this number, but may also not be able to identify the target or reach the front of the prostate.

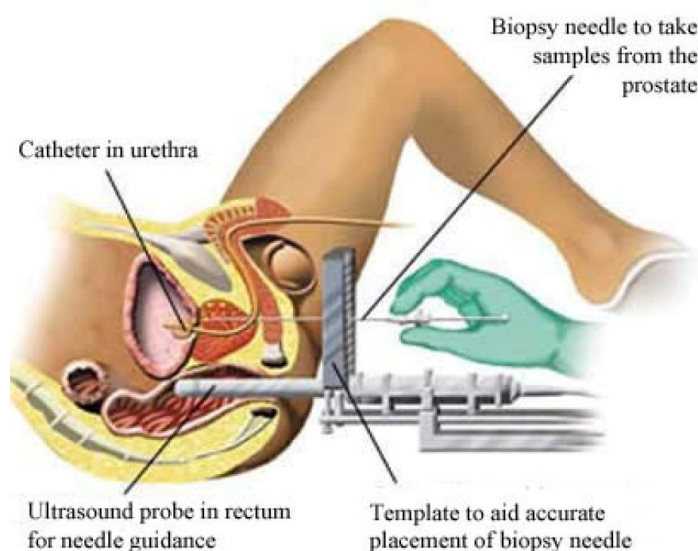
What are the alternatives to this procedure?

Observation with repeat blood tests but without biopsies

What should I expect before the procedure?

You will usually be admitted on the day of your surgery. You will normally undergo pre assessment on the day of your clinic or an appointment for pre assessment will be made from clinic, to assess your general fitness, to screen for the carriage of MRSA and to perform some baseline investigations. After admission, you will be seen by members of the medical team which may include the consultant, junior urology doctors and your named nurse.

If you are taking Warfarin, you must inform the clinic staff at your pre assessment visit so that you are advised when to stop your Warfarin prior to the



procedure. Usually you are asked to withhold Warfarin for three days. A blood test, INR, will be performed prior to your biopsy. If you are taking Aspirin, you do not need to stop these. If you are taking Clopidogrel, you must inform the medical staff because the biopsy may need to be postponed or alternative arrangements made.

After checking for allergies, you will normally be given an intravenous injection of antibiotic at the time of your anaesthetic.

Please be sure to inform your urologist in advance of your surgery if you have any of the following:

- an artificial heart valve
- a coronary artery stent
- a heart pacemaker or defibrillator
- an artificial joint
- an artificial blood vessel graft
- a neurosurgical shunt
- any other implanted foreign body
- a prescription for Warfarin, Aspirin or Clopidogrel (Plavix®)
- a previous or current MRSA infection
- high risk of variant CJD (if you have received a corneal transplant, a neurosurgical dural transplant or previous injections of human derived growth hormone)

What happens during the procedure?

After the general or spinal anaesthetic has been given, your legs will be placed in special supports so that the surgeon can gain access to the skin behind the testicles and insert the ultrasound probe into the rectum. The doctor will examine the prostate through the back passage (anus) before inserting the ultrasound probe. This probe is as wide as a man's thumb and approximately four inches long.

In order to take samples (biopsies) of the prostate, a special grid is used so that all areas of the prostate can be covered. The biopsy needles are inserted into the prostate through the skin of the perineum using a grid, guided by the ultrasound probe and the previous MRI image. After the sampling has been completed, a dressing will be applied to the perineum and held in place with a pair of disposable pants.



What happens immediately after the procedure?

The catheter will be removed either the day after surgery, or the next day if there is bleeding unless you have a fever. You will normally be able to go home later the same day after checks have been made to ensure that you are passing urine normally.

Following this type of biopsy, blood in the urine is common for two to five days, with the occasional blood clot, but this should clear quickly if you increase your fluid intake. You may expect to see blood in the semen for up to six weeks. Perineal bruising is common but don't be alarmed as it is only skin bruising and may involve an area of larger than

that covering the needle entry points. You will be given antibiotics to take home for a three day period.

The average hospital stay is one day.

Are there any side effects?

Most procedures have a potential for side effects. You should be reassured that, although all these complications are well recognised, the majority of patients do not suffer any problems after a urological procedure.

Please use the check boxes to tick off individual items when you are happy that they have been discussed to your satisfaction:

Common (greater than one in 10)

- Blood in the urine for up to 10 days
- Blood in the semen – this may last for up to six weeks but is perfectly harmless and poses no problem for you or your sexual partner
- Bruising in the perineal area
- Urinary infection (10% risk)
- Sensation of discomfort from the prostate due to bruising
- Haemorrhage (bleeding) causing an inability to pass urine (2% risk)

Occasional (between one in 10 and one in 50)

- Blood infection (septicaemia) requiring hospitalisation (2% risk)
- Haemorrhage (bleeding) requiring hospitalisation (1% risk)
- Failure to detect a significant cancer of the prostate
- The procedure may need to be repeated If the biopsies are inconclusive or your PSA level rises further at a later stage
- Inability to pass urine (retention of urine)

Rare (less than one in 50)

- Urinary infection (1%)
- Blood infection (septicaemia) requiring hospitalisation (1%)
- Bleeding requiring hospitalisation (1%)

Hospital-acquired infection (overall risk for Addenbrooke's)

- Colonisation with MRSA (0.01%, two in 15,500)
- Clostridium difficile bowel infection (0.02%; three in 15,500)
- MRSA bloodstream infection (0.00%; 0 in 15,000)

(These rates may be greater in high risk patients eg with long term drainage tubes, after removal of the bladder for cancer, after previous infections, after prolonged hospitalisation or after multiple admissions.)

What should I expect when I get home?

When you leave hospital, you will be given a discharge summary of your admission. This holds important information about your inpatient stay and your operation. If, in the first few weeks after your discharge, you need to call your GP for any reason or to attend another hospital, please take this summary with you to allow the doctors to see details

of your treatment. This is particularly important if you need to consult another doctor within a few days of your discharge.

It is important that you:

- undertake only non-strenuous activity for the first 48 hours after the biopsies
- drink twice as much fluid as you would normally for the first 48 hours after the biopsies
- maintain regular bowel function
- avoid physically demanding activities
- complete your three day course of antibiotics
- Any discomfort can usually be relieved by simple painkillers.

What else should I look out for?

If you experience a fever, shivering or develop symptoms of cystitis (frequency and burning on passing urine), you should contact your GP. If there is a lot of bleeding in the urine, especially with clots of blood, you should contact the urology department.

If you experience difficulty passing urine, this requires urgent action and your GP should be informed immediately or attend Accident and Emergency.

If you develop a fever outside surgery opening hours, you must telephone the emergency number at your GP surgery so that a doctor can assess your condition.

Are there any other important points?

You will receive an appointment for discussion of the biopsy results at the time of your examination.

It will be at approximately 21 days before the pathology results on the tissue removed are available. It is normal practice for the results of all biopsies to be discussed in detail at a multidisciplinary meeting before any further treatment decisions are made. You and your GP will be informed of the results after this discussion. We sometimes need to order additional tests as a result of the discussion at this meeting and, as a result, you may receive appointments for a bone scintigram, CT scan or MRI scan before you are seen again in outpatients.

Driving after surgery

It is your responsibility to ensure that you are fit to drive following your surgery.

You do not normally need to notify the DVLA unless you have a medical condition that will last for longer than three months after your surgery and may affect your ability to drive. You should, however, check with your insurance company before returning to driving. Your doctors will be happy to provide you with advice on request.

Privacy & Dignity

Same sex bays and bathrooms are offered in all wards except critical care and theatre recovery areas where the use of high tech equipment and/or specialist one to one care is required.

Hair removal before an operation

For most operations, you do not need to have the hair around the site of the operation removed. However, sometimes the healthcare team may need to remove hair to allow them to see or reach your skin. If the healthcare team consider it is important to remove the hair, they will do this by using an electric hair clipper, with a single-use disposable head, on the day of the surgery. Please do not shave the hair yourself, or use a razor for hair removal, as this can increase the risk of infection to the site of the operation. If you have any questions, please ask the healthcare team who will be happy to discuss this with you.

References

NICE clinical guideline No 74: Surgical site infection (October 2008); Department of Health: High Impact Intervention No 4: Care bundle to preventing surgical site infection (August 2007)

Is there any research being carried out in this field at Addenbrooke's Hospital?

There are a number of research projects involving MRI and transperineal biopsy taking place at Addenbrookes and you may be approached by the prostate research nursing team. There is no specific research in this area at the moment but all operative procedures performed in the department are subject to rigorous audit at a monthly audit and clinical governance meeting.

Who can I contact for more help or information?

Oncology nurses

Uro-oncology nurse specialist

01223 586748

Bladder cancer nurse practitioner (haematuria, chemotherapy and BCG)

01223 274608

Prostate cancer nurse practitioner

01223 274608 or 216897 or bleep 154-548

Surgical care practitioner

01223 348590 or 256157 or bleep 154-351

Non-oncology nurses

Urology nurse practitioner (incontinence, urodynamics, catheter patients)

01223 274608 or 586748 or bleep 157-237

Urology nurse practitioner (stoma care)

01223 349800

Urology nurse practitioner (stone disease)

01223 349800 or bleep 152-879

Patient Advice and Liaison Centre (PALS)

Telephone:

+44 (0)1223 216756 or 257257

+44 (0)1223 274432 or 274431

PatientLine: *801 (from patient bedside telephones only)

E mail: pals@addenbrookes.nhs.uk

Mail: PALS, Box No 53

Addenbrooke's Hospital

Hills Road, Cambridge, CB2 2QQ

Chaplaincy and multi faith community

Telephone: +44 (0)1223 217769

E mail: chaplaincy@addenbrookes.nhs.uk

Mail: The Chaplaincy, Box No 105

Addenbrooke's Hospital

Hills Road, Cambridge, CB2 2QQ

MINICOM System ("type" system for the hard of hearing)

Telephone: +44 (0)1223 217589

Access office (travel, parking and security information)

Telephone: +44 (0)1223 596060

What should I do with this leaflet?

Thank you for taking the trouble to read this patient information leaflet. If you wish to sign it and retain a copy for your own records, please do so below.

If you would like a copy of this leaflet to be filed in your hospital records for future reference, please let your urologist or specialist nurse know. If you do, however, decide to proceed with the scheduled procedure, you will be asked to sign a separate consent form which will be filed in your hospital notes and you will, in addition, be provided with a copy of the form if you wish.

I have read this patient information leaflet and I accept the information it provides.

Signature.....Date.....



We are now a smoke-free site: smoking will not be allowed anywhere on the hospital site.

For advice and support in quitting, contact your GP or the free NHS stop smoking helpline on 0800 169 0 169.

Help with this leaflet:



If you would like this information in another language, large print or audio format, please ask the department to contact Patient Information: 01223 216032 or

patient.information@addenbrookes.nhs.uk



Document history

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Contact number	01223 216575/ Fax 01223 216069
Publish/Review date	July 2014/July 2017
File name	PIN2074_Transrectal_prostatic_ultrasound_and_transperineal_biopsy_V7
Version number/Ref	V7/PIN2074
Local Ref number	110/Urol_04_11