

Transperineal template guided biopsy of the prostate

Procedure specific information for patients

What is a prostate biopsy?

The prostate gland produces the white fluid that becomes part of the semen. It is located below the bladder and in front of the rectum and is roughly the size of a walnut. A biopsy involves taking small samples of tissue from the prostate gland. These samples are then analysed by a histopathologist. The biopsy can find out whether any of the prostate cells have become cancerous or, if there is pre-existing cancer, whether the cancer has changed. It can also diagnose other conditions such as benign prostatic hyperplasia, prostatitis or prostatic intraepithelial neoplasia.

Why is a prostate biopsy needed?

Your Urologist will recommend a prostate biopsy if they believe there is a suspicion of prostate cancer. There are a number of reasons why they may have this suspicion.

1. A blood test may show a high level of prostate-specific antigen (PSA). This is a common marker for prostate cancer, PSA is a protein released into the blood by the prostate.
2. A previous biopsy may have shown no evidence of cancer but the PSA blood test is still suspicious.
3. There may be a known diagnosis of prostate cancer but treatment is yet required, the biopsy is performed to monitor the progress of the cancer.
4. A lump or abnormality is found during a digital rectal examination.

What does the procedure involve?

The transperineal technique is an alternative method for sampling the prostate compared with the older transrectal method. It involves taking the biopsy via a grid placed on the perineum, which is

the area between the scrotum and the rectum. It is usually performed under general anaesthetic or sedation and locoregional anaesthetic. The technique can be used to map the whole prostate, if the MRI is not absolutely clear. Mapping involves biopsies taken from all zones throughout the prostate every 5-10mm. Transperineal biopsies can also be targeted to suspicious areas on MRI.

Advantages over traditional methods.

Advantages to this technique include the improved diagnostic accuracy compared to TRUS biopsy. This is particularly the case when the areas of suspicion are in the anterior of the prostate where the TRUS biopsy has traditionally struggled to sample. Rates of sepsis are also significantly lower as the biopsy is taken via the skin rather than via the rectum.

What are the risks?

There are risks in every procedure, however serious complications with this procedure are rare. Infection can occur in about 1% of patients. Antibiotics are proscribed after the biopsy to reduce the risk of infection. However if a fever develops, or if there is pain when passing urine, then it is recommended that medical attention is sought.

Blood in the urine is not uncommon and increasing fluid intake to flush the system should clear out any bleeding. However if this persists medical attention to clarify the situation should be sought. It is possible that the biopsy may cause an internal bruise that can lead to difficulty passing urine. This may mean that a catheter is required and you should consult your urologist for their advise. Allergic reactions are possible when medication is taken, supplying a detailed medical history of previous allergic reactions will reduce the risk of this occurring. If an allergic reaction appears please consultant your urologist or visit the nearest hospital if it is a severe reaction.

Before the biopsy.

Your consultant will go through the procedure with you before, however it is important that you let them know several pieces of information. This information will include any current medication, allergies and previous medical history.

Unless instructed by the consultant medication should be taken as normal.

Day of the biopsy.

This procedure is usually carried out as a day case, this means an overnight stay is not required. A letter will be sent detailing when and where you need to go on the day of admission. Once admitted, the consultant or the nurse specialist, will go through the procedure again and ask you to sign a consent form, you will have the opportunity to ask any last questions at this stage.

If you are having a general anaesthetic you will be told when to stop eating and drinking before the procedure. The anaesthetic will make you sleep for the whole procedure so you will not feel any pain or discomfort. The surgeon will see you prior to discharge.

After the biopsy

If local anaesthetic was used you can leave once urine is passed normally. It is suggested that you rest at home for the remainder of the day.

If you had general anaesthetic, someone will need to help you home. General anaesthetic takes 24 to 48 hours to wear off.

Antibiotics will be prescribed to reduce the risk of infection.

There will likely be mild discomfort in the biopsy area for a couple of days after the biopsy. There may also be some blood in the urine for a few days. Furthermore the semen may be discoloured for up to six weeks after the biopsy, this is a common occurrence.

Plenty of fluids should be drunk while there is blood in the urine.

Further information

For all further information, questions or enquires please contact the Nuada Urology coordinator, she can be contact via the following methods:

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