

TRANSRECTAL PROSTATE ULTRASOUND AND BIOPSY (55600, 37219)

Introduction

Prostate cancer is a common condition that affects 1 in 7 Australian men. This is often silent until it is at an advanced stage, causing bleeding, blockage of the kidney or bladder, bone pain and fractures. Prostate cancer is suspected if the PSA test is high, rises at an unexpected rate, or the prostate feels firm and nodular. The only way to diagnose the disease is to obtain samples of tissue (biopsy) from the prostate for analysis under a microscope.

What are the alternatives?

1. Transrectal biopsy
 - a) Most commonly performed technique
 - b) Needles passed via the rectum
2. Transperineal biopsy
 - a) Second most commonly performed technique
 - b) Needles passed beneath the scrotum
 - c) May utilise a template or grid to sample the prostate systematically
3. Saturation biopsy
 - a) Extensive number of biopsies are taken in attempt to find cancer where suspected, but previous biopsies have been negative
4. Prostate MRI
 - a) Used in selective cases to examine the prostate and lymph nodes for cancer
 - b) May help target biopsies to suspicious areas within the prostate
 - c) Currently not reliable as a single test to diagnose or exclude cancer

What does the procedure involve?

A narrow ultrasound probe is inserted in the rectum (back passage) and the prostate measured and examined for signs of cancer. A biopsy is then performed to obtain tissue samples from the prostate gland at multiple locations. This is done with a biopsy needle inserted through the rectum or perineum (area underneath the scrotum). The minimum number biopsies is 14, although more samples will be obtained from areas of abnormality or if the prostate is very large. The tissue is sent to a pathologist, who will examine the cells under a microscope and determine if they are atypical or cancerous.

A prostate biopsy can be performed under local or general anaesthetic/sedation.

Local anaesthetic

Pros: Fasting is not required. You may drive to the hospital and back home after.

Cons: You will have to lie still for 30 minutes. A sharp stinging sensation can be felt when the needle enters the rectum, and a discomfort when some of the biopsies are done.

General anaesthetic/sedation

Pros: You are asleep for the entire procedure

Cons: You will need to fast (no food or fluids) for 6 hours before the procedure.

Sedative and anaesthetic drugs are administered, and 1-2 hours of observation during the recovery period is required. You should not drive or operate heavy machinery for up to 24 hours after.

What are the risks of surgery?

All operations have risks. These are explained below, with estimated likelihood of occurring and techniques used to prevent them.

Common (>20%)

Blood in the urine (lasts up to 1 week)

Blood in the back passage (lasts up to 1 week)

Blood in the semen (lasts up to 6 weeks)

Occasional (1-5%)

Infection in the prostate, urinary tract or blood stream (sepsis)

Heavy bleeding or blood clots

Urinary retention

Very Rare (<0.5%)

Death from severe sepsis

What should I do before surgery?

- Take a laxative the night before and open your bowels on the morning of surgery (let the nurse know if you don't, so that an enema can be given)
- Fast 6 hours before surgery if you are having general anaesthesia or sedation
 - Do not eat or drink anything or the surgery will be cancelled
 - A sip of water for your usual medications is allowed
- Please arrive at the hospital about 90 minutes prior to the procedure
- You will be given the following antibiotics 1 hour prior, and additional 2 doses to take at home after the procedure (to be taken 12 hourly):
 - Ciprofloxacin
 - Trimethoprim and Sulfamethoxazole (Bactrim DS)
- An iodine suppository will be administered 30 minutes prior to cleanse the rectum and reduce infection risk
- If you have travelled to certain countries such as South East Asia recently, you may be given intravenous antibiotics (Meropenem) as additional precaution

What should I expect after surgery?

A prostate biopsy is performed as a day procedure, and you can go home the same day. You should be able to return to work over the next 1-2 days.

If you develop fevers, shivers, difficulty urinating or feel generally unwell, please contact the hospital nurse manager, your surgeon, or attend the nearest emergency department. This is a sign of sepsis and may occur 2-3 days after the biopsy.

Follow-up

You will be given an appointment to see your surgeon 1-2 weeks after the biopsy. This follow-up appointment is part of the surgery and is bulk-billed. If you have cancer, a double appointment with extra time will be allocated to you to discuss the treatment options, this will incur a fee as a review appointment.