

Patient Information and consent

PROSTATE HIFU

What is prostate cancer?

Prostate cancer is cancer that begins in the prostate. Cells in the prostate start to divide and grow out of the normal pattern. This does not mean that you end up with a larger prostate. The cells that are growing are similar to cells in the prostate, but they do not grow into normal prostate tissue. They grow into lumpy bundles of cells called tumours. Tumours disrupt the normal function of the prostate, and cells that come free from the tumour can travel elsewhere in the body, and begin to grow tumours there.

Facts about prostate cancer

- Prostate cancer is the most common cancer in males and the second leading cause of male cancer deaths.
- It is most common among men between the ages of 60 and 80.
- Known risk factors for prostate cancer include age, race and family history.
- The early stages of prostate cancer generally show no symptoms.
- When the tumour becomes more advanced, patients may experience a weak urinary stream, the inability to urinate, interruption of urinary stream, frequent urination (especially at night), pain or burning during urination, and blood in the urine. It is important, however to remember that these symptoms are not specific and may be a result of benign prostatic enlargement.

What is HIFU?

HIFU stands for High Intensity Focused Ultrasound. It is a treatment for organ confined prostate cancer and was recognised by the National Institute of Clinical Excellence (NICE) in March 2005. The treatment does not involve an incision and uses intersecting, precision focused ultrasound waves to raise the temperature of the target tissue to 80-90 degrees celsius in two to three seconds, effectively destroying the targeted cancerous tissues.

Facts about prostate HIFU

- It does not involve an incision and therefore avoids the risk of a surgical site infection.
- It aims to preserve the vital structures around the gland that are involved in normal bladder emptying, preserving continence, erectile and orgasmic function.
- It avoids ionizing radiation and its associated toxic side effects
- It is a fairly long procedure (2-3 hours) but it can be administered as a day case procedure resulting in a patient discharge within 4 hours of the treatment.
- It does require the use of a urinary catheter for 5-14 days following the treatment.

Bristol Urology Associates Ltd 85 Alma Road, Clifton, Bristol BS8 2DP

Tel 0117 9804118 Fax 0117 9745758

www.bristolurology.com info@bristolurology.com

Registered Company Number 042838855

What are the advantages and disadvantages of HIFU?

Advantages:

- No incision, therefore avoiding the risk of a surgical site infection.
- Usually a day case.
- It aims to preserve the vital structures around the gland therefore preserving continence, erectile and orgasmic function.
- The procedure can be repeated if the first HIFU has failed
- Radiation therapy and surgery are still options if the procedure fails.

Disadvantages:

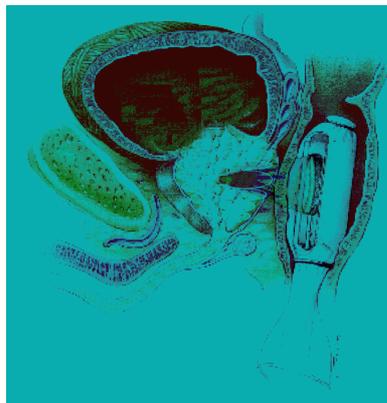
- Urinary catheter required for 10–14 days post-HIFU.
- Urinary symptoms such as stinging when passing urine and poor flow of urine may be experienced in the first 3 months following HIFU.
- Temporary urinary incontinence and stress incontinence.
- As for all prostate cancer treatments most men will be infertile due to decreased or absent ejaculatory fluid.

What is the preparation for HIFU?

On the day before the procedure you will have to take a bowel preparation at home. You may have a light breakfast and then commence on clear fluids only for the rest of the day. You are allowed to drink water until 2 hours before admission.

You will be admitted to hospital on the morning of the HIFU. You will be given an enema on admission and any necessary blood tests, ECG or x-rays will be undertaken. Your consultant will see you before you go to theatre and ask you to sign informed consent. You will be seen by the anaesthetist.

How is the HIFU performed?



You will be given a general anaesthetic. An ultrasound probe is placed in the rectum and the prostate is imaged. The ultrasound probe is then used to focus high-intensity sound waves on a particular area of the prostate, causing heat in the tissues. This heat causes prostate tissue death. The process is repeated over the whole area of prostatic tumour until all the cancerous tissue has been destroyed.

A trans-urethral or supra-pubic catheter is left in place following the procedure for drainage of urine. This is because there will be swelling in the area which will impede your ability to pass urine. The catheter remains in for 3–14 days.

On average you will be in theatre for between 2 and 4 hours.

What are the risks associated with HIFU?

- Erectile dysfunction in up to 30% of cases.
- Urinary tract infections in 8% of cases.
- Recto-urethral fistula in 0.5% of cases (a channel between the prostate or bladder and the rectum that may cause diarrhea due to urine in the rectum and infection due to bacteria in the bladder).

What happens after the treatment?

Usually you will be discharged home later on the same day as the HIFU therapy. You may eat and drink as soon as you are awake and will be encouraged to walk.

You may have some urinary symptoms and difficulties at any time in the 12 weeks following HIFU. About 60% of patients experience no trouble and will pass urine with a good flow, good control, no frequency and no incontinence within a few days of having the catheter removed.

Approximately 30–40% of patients may experience some urinary symptoms due to the debris causing an obstruction of the urethra.

These difficulties can include:

- Very poor urinary flow or difficulty in passing urine.
- Urgency, frequency and hesitancy
- Nocturia (getting up to pass urine more than twice at night).
- Pain in the lower abdomen, penis and/or perineum.
- A stinging feeling when passing urine or attempting to pass urine.

The first line of treatment is to drink extra fluids to flush out the debris and use paracetamol and other pain killers for the discomfort or pain.

Should these symptoms persist for more than a week you should call:

During office hours: 0117 980 4118
Out of hours: 0765 959 2870

These symptoms can be distressing and debilitating but it should be remembered that they are usually of a temporary nature.

Some symptoms you may experience following HIFU include:

- Generalised fatigue for up to a week.
- Mild scrotal or penile swelling for 7–10 days.
- A feeling of pressure or pain in the perineum or lower abdomen for up to 3 weeks (it is advisable to use the painkillers you are prescribed if you are experiencing any pain).
- Urethral discharge of blood or debris (pieces of dead prostate tissue) which can last for up to 6 weeks.
- Urinary frequency and urgency for up to 12 weeks.

Further Information

If you have any questions or concerns about your care, please contact the nurse in charge of the hospital.

You can also get further information from:

- www.aboutmyhealth.org - for support and information you can trust
- CancerBACUP, a cancer information and support service, on 0808 800 1234 and at www.cancerbacup.org.uk
- Cancer Research UK at www.cancerhelp.org.uk
- NHS Direct on 0845 4647 (0845 606 46 47 - textphone)

This document is intended for information purposes only and you should read it either together with, or depending on, any advice given by your relevant health professional.