The British Association of Urological Surgeons

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HOLMIUM LASER ENUCLEATION OF THE PROSTATE (HoLEP)

INFORMATION FOR PATIENTS

What evidence is this information based on?

This booklet includes advice from consensus panels, the British Association of Urological Surgeons, the Department of Health and other sources. As such, it is a reflection of best urological practice in the UK. You should read this booklet with any advice your GP or other healthcare professional may already have given you. We have outlined alternative treatments below that you can discuss in more detail with your urologist or specialist nurse.

What does the procedure involve?

Removal of obstructing prostate tissue using a telescope and a laser.

What are the alternatives to this procedure?

Alternatives to this procedure include drugs, use of a catheter or stent, observation, conventional transurethral resection and "open" surgery.

What should I expect before the procedure?

If you regularly take aspirin or clopidogrel, you must discuss this with your urologist because these drugs can cause increased bleeding after surgery. Stopping them may reduced the risk of bleeding but this can result in increased clotting, which may also carry a risk to your health. You will need to discuss the risks and benefits of the treatment with your GP or your urologist.

You will usually be admitted to hospital on the same day as your surgery. You will normally receive an appointment for a "pre-assessment" to assess your general fitness, to screen you for MRSA and to do some baseline investigations. Once you have been admitted, you will be seen by members of the medical team which may include the consultant, specialist registrar, house officer and your named nurse.

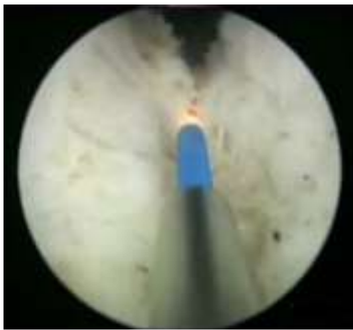
You will be asked not to eat and drink for six hours before surgery. Immediately before the operation, the anaesthetist may give you a pre-medication which will make you dry-mouthed and pleasantly sleepy.

Please tell your surgeon (before 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 regular prescription for warfarin, aspirin or clopidogrel (Plavix®)
- A previous or current MRSA infection
- A high risk of variant-CJD (if you have had a corneal transplant, a neurosurgical dural transplant or injections of human-derived growth hormone).

When you are admitted to hospital, you will be asked to sign the second part of your operation consent form giving permission for your operation to take place, showing you understand what is to be done and confirming that you want to go ahead. Make sure that you are given the opportunity to discuss any concerns and to ask any questions you may still have before signing the form.

What happens during the procedure?



Either a full general anaesthetic (where you will be asleep) or a spinal anaesthetic (where you are unable to feel anything from the waist down) will be used. All methods minimise pain. Your anaesthetist will explain the pros and cons of each type of anaesthetic to you. The operation, on average, takes 60 - 120 minutes, depending on the size of your prostate.

You will usually be given an injectable antibiotic before the procedure, after checking for any drug allergies.

The surgeon uses a telescope and laser to separate the obstructing prostate tissue from its surroundings (pictured) and to release it in chunks into the bladder. A second instrument is then passed through the telescope to remove the prostate tissue from the bladder. A catheter is normally left in the bladder afterwards.

What happens immediately after the procedure?

You should be told how the procedure went and you should:

- ask the surgeon if it went as planned;
- let the medical staff know if you are in any discomfort;
- ask what you can and cannot do;
- feel free to ask any questions or discuss any concerns with the ward staff and members of the surgical team; and
- make sure that you are clear about what has been done and what happens next.

There is always some bleeding from the prostate area after the operation but your urine should be clear of blood within 12 hours. Some patients lose blood for longer. It is unusual to require a blood transfusion after laser surgery.

You should drink as much as possible in the first 12 hours after the operation to help the bleeding clear. Sometimes, we flush fluid through your catheter to clear the urine of blood.

You will be able to eat and drink when you feel able to.

Your catheter is usually removed at midnight on the first night after surgery. This allows your bladder time to fill overnight and, in the morning, we can decide whether you can go home. At first, you may get pain when you pass urine and it may come more frequently than normal. Any discomfort can be relieved by tablets or injections and the frequency usually improves within a few weeks. Some of your symptoms, especially frequency, urgency and getting up at night to pass urine, may take several months to settle.

A lot of prostate tissue is removed with the laser technique. You may, therefore, notice temporary loss of urinary control until your pelvic floor muscles recover.

It is not unusual for your urine to turn bloody again for the first 24 to 48 hours after catheter removal and some blood may still be visible in your urine several weeks after surgery.

Let your nurse know if you are unable to pass urine or if your bladder feels uncomfortably full after the catheter is removed. Some patients cannot pass urine at all after the operation due due to internal swelling within the prostate area. If this happens, we normally pass another catheter until the swelling has resolved. If you do need another catheter, you will usually go home with the catheter and return after a week or so for a second catheter removal. Most patients pass urine after removal of the second catheter.

The average hospital stay is one to two days.

Are there any side-effects?

Most procedures have possible side-effects. But, although the complications listed below are well-recognised, most patients do not suffer any problems.

Common (greater than 1 in 10)

- Temporary burning, bleeding and frequency when mpassing urine.
- No semen is produced during an orgasm in approximately 75%.
- Treatment may not relieve all your urinary symptoms.
- Poor erections (impotence in approx approximately 14%).
- Infection of the bladder, testicles or kidney requiring antibiotics.
- Need to repeat treatment later due to re-obstruction (approx 10%).
- Injury to the urethra causing delayed scar formation.
- Loss of urinary control (incontinence) which reduces within 6 weeks (10-15%).

Occasional (between 1 in 10 and 1 in 50)

- Need self catheterisation to empty bladder fully.
- Failure to pass urine after surgery requiring another catheter.
- Bleeding requiring either return to theatre or blood transfusion (less than 2%).

Rare (less than 1 in 50)

- Finding unsuspected cancer in the removed tissue, which may need further treatment.
- Retained tissue fragments floating in the bladder which may require a further telescopic procedure for their removal.
- Perforation of the bladder requiring a temporary urinary catheter or open surgical repair.
- Persistent loss of urinary control which may require a further operation (1-2%).

Hospital-acquired infection

- Colonisation with MRSA (0.9% - 1 in 110).
- MRSA bloodstream infection (0.02% - 1 in 5000).
- Clostridium difficile bowel infection (0.01% - 1 in 10,000).

The rates for hospital-acquired infection may be greater in high-risk patients, for example those patients

- with long-term drainage tubes;
- who have had their bladder removed due to cancer;
- who have had a long stay in hospital; or
- who have been admitted to hospital many times.

What should I expect when I get home?

When you are discharged from hospital, you should:

- be given advice about your recovery at home;
- ask when you can begin normal activities again, such as work, exercise, driving, housework and sex;
- ask for a contact number if you have any concerns once you return home;
- ask when your follow-up will be and who will do this (the hospital or your GP); and
- be sure that you know when you get the results of any tests done on tissues or organs that have been removed.

When you leave hospital, you will be given a “draft” discharge summary. This contains important information about your stay in hospital and your operation. If you need to call your GP or if you need to go to another hospital, please take this summary with you so the staff can see the details of your treatment. This is important if you need to consult another doctor within a few days of being discharged.

Most patients feel tired and listless for a week or two because, althogh there is little to show for it, this is major surgery. You may notice that you pass very small flecks of tissue in the urine at times during the first month as the prostate area heals. This does not usually cause any problems.

What else should I look out for?

If you develop a fever, severe pain when passing urine, you cannot pass urine or any bleeding gets worse, you should contact your GP immediately.

About 1 man in 5 experiences bleeding 10 to 14 days after getting home. This is due to scabs separating from the incision in the prostate. Increasing your fluid intake should stop this bleeding quickly but, if it does not, you should contact your GP who will prescribe some antibiotics for you. In the event of severe bleeding, passage of clots or sudden difficulty in passing urine, you should contact your GP immediately when it may be necessary for you to be re-admitted to hospital.

Are there any other important points?

Removal of your prostate should not adversely affect your sex life provided you still get normal erections. Sex can be resumed as soon as you are comfortable, usually after three to four weeks.

You should start pelvic floor exercises as soon as possible after the operation because this improves control over your bladder when you get home. If you need specific information on these exercises, please contact the ward staff or the specialist nurses.

The symptoms of an overactive bladder may take three months to resolve while the flow tends to improve immediately.

It will be 14 to 21 days before the biopsy results on the tissue removed are available. All biopsies are discussed in detail at a multi-disciplinary meeting before any further treatment decisions are made. You and your GP will be informed of the results after this discussion.

You will be reviewed in the outpatient clinic and several of your tests will be repeated (including a flow rate, bladder scan & symptom score) to assess whether the surgery has been successful.

Most patients require a recovery period of two to three weeks before they feel ready for work. We recommend three to four weeks' rest before resuming any job, especially if it is physically demanding. You should avoid any heavy lifting during this time.

Driving after surgery

It is your responsibility to make sure you are fit to drive following your surgery. You do not normally need to tell the DVLA that you have had surgery, 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 give you advice on this.

Is any research being carried out in this area?

Before your operation, your surgeon or specialist nurse will tell you about any relevant research studies taking place. In particular, they will tell you if any tissue that is removed during your surgery will be stored for future study. If you agree to this research, you will be asked to sign a special form giving your consent.

All surgical procedures, even those not currently undergoing research, are audited so that we can analyse our results and compare them with those of other surgeons. In this way, we learn how to improve our techniques and results; this means that our patients will then get the best treatment available.

What should I do with this information?

Thank you for taking the trouble to read this booklet. If you want to keep a copy for your own records, please sign below. If you would like a copy of this booklet filed in your hospital records for future reference, please let your urologist or specialist nurse know. However, if you do agree to go ahead with the scheduled procedure, you will be asked to sign a separate consent form that will be filed in your hospital records; we can give you a copy of this consent form if you ask.

I have read this booklet and I accept the information it provides.

Signature... Date...

How can I get information in alternative formats?

Please ask your local NHS Trust or PALS network if you require this information in other languages, large print, Braille or audio format.

Most hospitals are smoke-free. Smoking can make some urological conditions worse and increases the risk of complications after surgery. For advice on stopping, contact your GP or the free **NHS Smoking Helpline** on **0800 169 0 169**

Disclaimer

While we have made every effort to be sure the information in this booklet is accurate, we cannot guarantee there are no errors or omissions. We cannot accept responsibility for any loss resulting from something that anyone has, or has not, done as a result of the information in this booklet.

The NHS Constitution
Patients' Rights & Responsibilities

Following extensive discussions with staff and the public, the NHS Constitution has set out new rights for patients that will help improve your experience within the NHS. These rights include:

- a right to choice and a right to information that will help you make that choice;
- a right to drugs and treatments approved by NICE when it is considered clinically appropriate;
- a right to certain services such as an NHS dentist and access to recommended vaccinations;
- the right that any official complaint will be properly and efficiently investigated, and that patients will be told the outcome of the investigations; and
- the right to compensation and an apology if you have been harmed by poor treatment.

The constitution also lists patients' responsibilities, including:

- providing accurate information about their health;
- taking positive action to keep yourself and your family healthy.
- trying to keep appointments;
- treating NHS staff and other patients with respect;
- following the course of treatment that you are given; and
- giving feedback (both positive and negative) after treatment.

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