Holmium laser bladder neck incision: procedure-specific information

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 GP or other healthcare professionals. Alternative treatments are outlined below and can be discussed in more detail with your Urologist or Specialist Nurse.

What does the procedure involve?
This involves telescopic laser incision through the prostate and bladder outlet to widen the urinary channel with temporary insertion of a catheter for bladder drainage.

What are the alternatives to this procedure?
Drugs, use of a catheter/stent, observation or conventional bladder neck incision using electrical current rather than a laser.
What should I expect before the procedure?
If you are taking Aspirin or Clopidogrel on a regular basis, you must discuss this with your urologist because these drugs can cause increased bleeding after surgery. There may be a balance of risk where stopping them will reduce the chances of bleeding but this can result in increased clotting, which may also carry a risk to your health. This will, therefore, need careful discussion with regard to risks and benefits.

You will usually be admitted on the day of surgery. Your general fitness, to screen for the carriage of MRSA will be assessed and sometimes some baseline investigations performed prior to your admission. This can, on occasions, be done by telephone or you may be asked to attend a pre-admission clinic approximately 14 days before your admission, depending on your medical history. After admission, 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 or drink for 6 hours before surgery and, immediately before the operation, you may be given a pre-medication by the anaesthetist which will make you dry-mouthed and pleasantly sleepy.

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?
Either a full general anaesthetic (where you will be asleep throughout the procedure) or a spinal anaesthetic (where you are awake but 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 20-30 minutes.
You will usually be given an injectable antibiotic before the procedure after checking for any drug allergies.

The laser is used to incise through any tight areas in the bladder outlet and prostate. Often, this allows sufficient widening of the urinary channel but, sometimes, a small amount of prostate tissue is removed at the same time to ensure the channel is clear and open. A catheter is normally left to drain the bladder at the end of the procedure.

**What happens immediately after the procedure?**

There is always some bleeding from the prostate area after the operation. The urine is usually clear of blood within 12 hours, although some patients lose blood for longer. It is unusual to require a blood transfusion after laser surgery.

It is useful to drink as much as possible in the first 12 hours after the operation because this helps the urine clear of blood more quickly. Sometimes, fluid is flushed through the catheter to clear the urine of blood.

You will be able to eat and drink on the same day as the operation when you feel able to.

The catheter is generally removed at midnight on the first night after surgery. This allows your bladder time to fill overnight so that, in the morning, the doctors can decide whether you can go home without the catheter. At first, it may be painful to pass your urine and it may come more frequently than normal. Any initial 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 not improve for several months because these are often due to bladder overactivity (which takes time to resolve after prostate surgery) rather than prostate or bladder neck blockage. It is not unusual for your urine to turn bloody again for the first 24-48
hours after catheter removal. Some blood may be visible in the urine even several weeks after surgery but this is usually not a problem.

Let your nurse know if you are unable to pass urine and feel as if your bladder is full after the catheter is removed. Some patients are unable to pass urine at all after the operation due to temporary internal swelling within the prostate area. If this should happen, we normally pass a catheter again to allow the swelling to resolve and the bladder to regain its function. Usually, patients who require re-catheterisation go home with the catheter in place and return after a week or so for a second catheter removal which, in almost all cases, is successful.

The average hospital stay is 1 day only.

**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 1 in 10)**
- Temporary mild burning, bleeding and frequency of urination after the procedure
- No semen is produced during an orgasm in approximately 20%
- Treatment may not relieve all the urinary symptoms
- Poor erections (impotence) in approximately 14%
- Infection of the bladder, testes or kidney requiring antibiotic treatment
- Possible need to repeat the treatment later due to re-obstruction (approximately 10%)
- Injury to the urethra (water pipe) causing delayed scar formation

**Occasional (between 1 in 10 and 1 in 50)**
- May need to self-catheterise to empty the bladder fully if the bladder itself is weak
- Failure to pass urine after surgery requiring a new catheter

**Rare (less than 1 in 50)**
- Bleeding requiring a return to theatre and/or blood transfusion (less than 2%)
Hospital-acquired infection (overall risk for Addenbrooke’s)

- Colonisation with MRSA (0.02%, 1 in 5,000)
- Clostridium difficile bowel infection (0.04%; 1 in 2,500)
- MRSA bloodstream infection (0.01%; 1 in 10,000)

(These rates may be greater in high-risk patients e.g. 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 “draft” 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.

Most patients feel tired and below par for a week or two because this is major surgery. Over this period, any frequency usually settles gradually.

What else should I look out for?

If you experience increasing frequency, burning or difficulty on passing urine or worrying bleeding, contact your GP.

About 1 man in 5 experiences bleeding some 10-14 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 since it may be necessary for you to be re-admitted to hospital.

Are there any other important points?

Incision of your prostate should not adversely affect your sex life provided you are getting normal erections before the surgery. Sexual activity can be resumed as soon as you are comfortable, usually after 3-4 weeks.

It is often helpful to start pelvic floor exercises as soon as possible after the operation since this can improve your control when you get home. The symptoms of an overactive bladder may take 3 months to resolve whereas the flow is improved immediately.

If you need any specific information on these exercises, please contact the ward staff or the Specialist Nurses. The symptoms of an overactive bladder may take 3 months to resolve whereas the flow is improved immediately.
Most patients require a recovery period of 2-3 weeks at home before they feel ready for work. We recommend 3-4 weeks’ rest before resuming any job, especially if it is physically strenuous and you should avoid any heavy lifting during this time. You should not drive until you feel fully recovered; two weeks is the minimum period that most patients require before resuming driving.

**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 3 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.

**Is there any research being carried out in this field at Addenbrooke’s Hospital?**
All procedures on the prostate using the Holmium laser are currently under review by the National Institute of Health & Clinical Excellence (NICE) and are subject to continuous audit within the department.

**Who can I contact for more help or information?**

**Oncology Nurses**
- Uro-Oncology Nurse Specialist
  01223 586748
- Bladder cancer Nurse Practitioner (haematuria, chemotherapy & BCG)
  01223 274608
- Prostate cancer Nurse Practitioner
  01223 247608 or 216897 or bleep 154-548
- Surgical Care Practitioner
  01223 348590 or 256157 or bleep 154-134

**Non-Oncology Nurses**
- Urology Nurse Practitioner (incontinence, urodynamics, catheter patients)
  01223 274608 or 586748
- Urology Nurse Practitioner (stoma care)
  01223 349800
What should I do with this form?
Thank you for taking the trouble to read this information sheet. 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 form 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 information sheet and I accept the information it provides.

Signature........................................Date.........................................
How can I get information in alternative formats?

Please ask if you require this information in other languages, large print or audio format: 01223 216032 or patient.information@addenbrookes.nhs.uk

**Polish**

Informacje te można otrzymać w innych językach, w wersji dużym drukiem lub audio. Zamówienia prosimy składać pod numerem: 01223 216032 lub wysyłając e-mail: patient.information@addenbrookes.nhs.uk

**Portuguese**

Se precisar desta informação num outro idioma, em impressão de letras grandes ou formato áudio por favor telefone para o 01223 216032 ou envie uma mensagem para: patient.information@addenbrookes.nhs.uk

**Russian**

Если вам требуется эта информация на другом языке, крупным шрифтом или в аудиоформате, пожалуйста, обращайтесь по телефону 01223 216032 или на вебсайт patient.information@addenbrookes.nhs.uk

**Cantonese**

若你需要此信息的其他語言版本、大字體版或音頻格式，請致電 01223 216032 或發郵件到：patient.information@addenbrookes.nhs.uk

**Turkish**

Bu bilgiyi diğer dillerde veya büyük baskıya veya sesli formatta ısterseniz lütfen su numaradan kontakt kurun: 01223 216032 veya asagıdaki adrese e-posta gönderin: patient.information@addenbrookes.nhs.uk

**Bengali**

এই তথ্য যাঁদের বড় অক্ষরে বা অক্ষর টেগে পেতে চাইলে দরকার করে 01223 216032 নম্বরে কোন করণ বা patient.information@addenbrookes.nhs.uk ছোটকানার ই-মেইল করন।
Addenbrooke’s is smoke-free. You cannot smoke anywhere on the site. Smoking increases the severity of some urological diseases and increases the risk of post-operative complications. For advice on quitting, contact your GP or the NHS smoking helpline free on 0800 169 0 169

Document history

Author(s)          Nikesh Thiruchelvam (on behalf of the Consultant Urologists)
Department         Department of Urology, Box No 43
                    Addenbrooke’s Hospital
                    Cambridge University Hospitals NHS Foundation Trust
                    Hills Road
                    Cambridge, CB2 2QQ
                    www.addenbrookes.org.uk
Contact number      01223 216575
Fax number          01223 216069
Dept website       www.camurology.org.uk
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