Ureteroscopic stone removal: 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?
Telescopic removal/fragmentation of stone(s) in the ureter or kidney with possible placement of a soft plastic tube or stent between the kidney and the bladder. This procedure also includes cystoscopy and x-ray screening.

What are the alternatives to this procedure?
Open surgery, shock wave therapy or observation to allow spontaneous passage.
What should I expect before the procedure?
You will usually be admitted on the same day as your surgery. You will normally receive an appointment for pre-assessment, approximately 14 days before your admission, to assess your general fitness, to screen for the carriage of MRSA and to perform some baseline investigations. 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. An X-ray may be taken in advance of surgery to confirm the position of your stone(s).

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?
Normally, a full general anaesthetic will be used and you will be asleep throughout the procedure.

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

A telescope is inserted into the bladder through the water pipe (urethra). Under X-ray screening, a flexible guidewire is inserted into the affected ureter up to the kidney. A longer telescope (either rigid or flexible) is then inserted into the ureter and passed up to the kidney. The stone is disintegrated using a mechanical probe or laser and the fragments extracted with special retrieval
devices. A ureteric stent may be left in place, and rarely a bladder catheter will be left in. If a stent is left in, you may notice a little string coming out of your waterpipe (urethra). Do not pull this. This shows your stent to be easily removed in clinic a few days after your discharge.

What happens immediately after the procedure?
If a bladder catheter has been inserted, this is usually removed on the day after surgery. You will be able to go home once you are passing urine normally. Most patients go home on the same day as their operation.

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)
- Mild burning or bleeding on passing urine for short period after operation
- Temporary insertion of a bladder catheter
- Insertion of a stent with a further procedure to remove it
- The stent may cause pain, frequency and bleeding in the urine

Occasional (between 1 in 10 and 1 in 50)
- Inability to retrieve the stone or movement of the stone back into kidney where it is not retrievable
- Kidney damage or infection needing further treatment
- Failure to pass the telescope if the ureter is narrow
- Recurrence of stones

Rare (less than 1 in 50)
- Damage to the ureter with need for open operation or tube placed into kidney directly from back to allow any leak to heal
Very rarely, scarring or stricture of the ureter requiring further procedures

**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.

When you get home, you should drink twice as much fluid as you would normally to flush your system through and minimise any bleeding.

You may experience pain in the kidney over the first 24-72 hours, due to the swelling caused by insertion of the instrument or by the presence of a stent. Anti-inflammatory painkillers will help this pain which normally settles after 72 hours.

It will take at least 10 days to recover fully from the operation. You should not expect to return to work within 7 days.

**What else should I look out for?**
If you develop a fever, severe pain on passing urine, inability to pass urine or worsening bleeding, you should contact your GP immediately. Small blood clots or stone fragments may also pass down the ureter from the kidney, resulting in renal colic; in this event, you should contact your GP immediately.

**Are there any other important points?**
If a stent has been inserted, you will be informed before your discharge when the stent needs to be removed. Ureteric stents are usually removed in the Day Surgery Unit under local anaesthetic if no string has been left on, or in the outpatient clinic if there is a string coming out of your waterpipe.

You can prevent further stone recurrence by implementing changes to your diet and fluid intake. If you have not already received a written leaflet about this, contact your named nurse, the Specialist Nurse in outpatients or your Consultant.
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?
There is no specific research in this area at the moment but all operative procedures performed in the department are subject to rigorous audit at a monthly Audit & Clinical Governance meeting.

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

Patient Advice & Liaison Centre (PALS)
- Telephone
  +44 (0)1223 216756 or 257257
  +44 (0)1223 274432 or 274431
- PatientLine
  *801 (from patient bedside telephones only)
- E mail
  pals@addenbrookes.nhs.uk
- Mail
  PALS, Box No 53
  Addenbrooke’s Hospital
  Hills Road, Cambridge, CB2 2QQ
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
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.