Urology Department

Laparoscopic simple removal of the Kidney

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 urologist or nurse specialist as well as the surgical team at Addenbrookes. 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 removal of the kidney through several keyhole incisions. It requires the placement of a telescope and operating instruments into your abdominal cavity using three to four small incisions. One incision will need to be enlarged to remove the kidney.

What are the alternatives to this procedure?
Observation, open surgery.

What is laparoscopic surgery?
Laparoscopy (otherwise known as “keyhole surgery”) is a form of minimal access surgery. This involves performing operations which are traditionally done by an “open” method but using “keyholes” instead. A number of urological procedures are now being performed by this method. It has been shown to be safe and effective for kidney surgery; for the removal of a kidney it is now the method of choice.

Your urologist will discuss the details of the procedure with you whilst you are an outpatient, outlining the procedure as part of your consent. You should be aware that there is a small chance (less than 1%) that your procedure may need to be converted to an open procedure. For this reason, if you are insistent that you would not agree to an open operation under any circumstances, we would not be able to proceed with the laparoscopic operation.
What should I expect before the procedure?
You will usually be admitted on the same day as your surgery. If not done the same day as your urology clinic appointment, you will normally undergo pre assessment on the day of your clinic or an appointment for pre assessment will be made from clinic, 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 surgical team which may include the consultant, junior urology doctors and your named nurse.

One important thing that you must do is to prepare yourself to mobilise immediately after the operation. You should try to walk at least 10 lengths of the ward before your operation.

You will be asked not to eat or drink for six 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.

You will need to wear anti-thrombosis stockings during your hospital stay; these help prevent blood clots forming in the veins of your legs during and after surgery.

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, Rivaroxaban, Dabigatran, Apixaban, Edoxaban or Clopidogrel, Ticagrelor or blood thinning medication
- 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?
A full general anaesthetic will be used and you will be asleep throughout the procedure.

You will be transferred to the operating theatre and you will be taken first to the anaesthetic room. They may put a drip in to your arm to allow them to access your circulation during the operation. You will be anaesthetised and taken into the operating theatre. During the surgery you will be given antibiotics by injection; if you have any allergies, be sure to let the anaesthetist know.

The kidney is disconnected through several keyhole incisions and put into a bag which is then removed by extending one of the keyhole incisions. A bladder catheter is normally inserted during the operation to monitor urine output and rarely, a drainage tube may be placed through the skin into the bed of the kidney.
What happens immediately after the procedure?

It is fine, and in fact you will be encouraged, to eat and drink as soon as you feel able to after surgery. You will be encouraged to mobilise as soon as possible after surgery. This helps to prevent blood clots forming in your legs, chest infection from developing, and also decreases any disturbance to your bowel function. The catheter is normally removed on the morning after surgery.

The expected hospital stay is one night. It is safe for most patients to go home on the afternoon after surgery.

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 one in 10)**
- □ Temporary shoulder tip pain
- □ Temporary abdominal bloating

**Occasional (between one in 10 and one in 50)**
- □ Bleeding, infection, pain or hernia of the incision requiring further treatment

**Rare (less than one in 50)**
- □ Bleeding requiring conversion to open surgery or requiring blood transfusion
- □ Entry into lung cavity requiring insertion of a temporary drain
- □ Recognised (or unrecognised) injury to organs/blood vessels requiring conversion to open surgery (or deferred open surgery)
- □ Involvement or injury to nearby local structures (blood vessels, spleen, liver, kidney, lung, pancreas, bowel) requiring more extensive surgery
- □ Anaesthetic or cardiovascular problems possibly requiring intensive care admission (including chest infection, pulmonary embolus, stroke, deep vein thrombosis, heart attack and death)
Hospital-acquired infection (overall risk for Addenbrooke's)

- Colonisation with MRSA (0.01%, two in 15,500)
- Clostridium difficile bowel infection (0.02%; three in 15,500)
- MRSA bloodstream infection (0.00%; 0 in 15,000)

(These rates may be greater in high risk patients eg 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?**

Before you leave hospital, the team will ensure you are safe to be discharged home. When you leave hospital, you will be given a 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.

There may be some discomfort from the small incisions in your abdomen but this can normally be controlled with simple painkillers.

All the wounds are closed with absorbable stitches which do not require removal.

It will take 10 to 14 days to recover fully from the procedure and most people can return to normal activities after two to four weeks.

**What else should I look out for?**

If you develop a temperature, increased redness, throbbing or drainage at the site of the operation, increasing abdominal pain or dizziness, please contact your GP/ward M4 (01223 348537)/on-call urology specialist registrar (via hospital switchboard 01223 245151) immediately.

**Are there any other important points?**

A follow-up outpatient appointment will normally be arranged for you around six weeks after the operation. At this time, we will be able to inform you of the results of pathology tests on the removed kidney.

It will be at least 14 to 21 days before the pathology results on the tissue removed are available. You and your GP will be informed of the results by letter.

After removal of one kidney, there is no need for any dietary or fluid restrictions since your remaining kidney can handle fluids and waste products with no difficulty.

**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 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 provide you with advice on request.
Privacy & Dignity
Same sex bays and bathrooms are offered in all wards except critical care and theatre recovery areas where the use of high tech equipment and/or specialist one to one care is required.

Hair removal before an operation
For most operations, you do not need to have the hair around the site of the operation removed. However, sometimes the healthcare team may need to remove hair to allow them to see or reach your skin. If the healthcare team consider it is important to remove the hair, they will do this by using an electric hair clipper, with a single-use disposable head, on the day of the surgery. Please do not shave the hair yourself, or use a razor for hair removal, as this can increase the risk of infection to the site of the operation. If you have any questions, please ask the healthcare team who will be happy to discuss this with you.

References:
NICE clinical guideline No 74: Surgical site infection (October 2008); Department of Health: High Impact Intervention No 4: Care bundle to preventing surgical site infection (August 2007)

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 and 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 274608 or 216897 or bleep 154-548

Surgical care practitioner
01223 348590 or 256157 or bleep 154-351

Non-oncology nurses
Urology nurse practitioner (incontinence, urodynamics, catheter patients)
01223 274608 or 586748 or bleep 157-237

Urology nurse practitioner (stoma care)
01223 349800
Urology nurse practitioner (stone disease)
01223 349800 or bleep 152-879

Patient Advice and 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

Chaplaincy and multi faith community
Telephone: +44 (0)1223 217769
E mail: chaplaincy@addenbrookes.nhs.uk
Mail: The Chaplaincy, Box No 105
Addenbrooke's Hospital
Hills Road, Cambridge, CB2 2QQ

MINICOM System ("type" system for the hard of hearing)
Telephone: +44 (0)1223 217589

Access office (travel, parking and security information)
Telephone: +44 (0)1223 596060

What should I do with this leaflet?
Thank you for taking the trouble to read this patient information leaflet. 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 leaflet 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 patient information leaflet and I accept the information it provides.

Signature..................................................Date.................................
We are now a smoke-free site: smoking will not be allowed anywhere on the hospital site.
For advice and support in quitting, contact your GP or the free NHS stop smoking helpline on 0800 169 0 169.

Help with this leaflet:

If you would like this information in another language, large print or audio format, please ask the department to contact
Patient Information: 01223 216032 or
patient.information@addenbrookes.nhs.uk