Urology Department

Radical 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, adrenal, surrounding fat and lymph nodes for suspected cancer of the kidney, using an incision either in the abdomen or in the side.

What are the alternatives to this procedure?
Observation alone, embolisation (cutting off the blood supply by coils inserted by the radiologists), partial nephrectomy and laparoscopic (telescopic or minimally invasive) approaches to radical or partial nephrectomy, medical therapy.

What should I expect before the procedure?
You will usually be admitted the day of your surgery. 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.

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 be given an injection under the skin of a drug (Dalteparin), which, along with the help of elasticated stockings provided by the ward, will help prevent thrombosis (clots) in the veins.

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?**

Normally, a full general anaesthetic will be used and you will be asleep throughout the procedure. In some patients, the anaesthetist may also use an epidural anaesthetic which improves or minimises pain post operatively.

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

The kidney is usually removed through an incision in your abdomen although, on occasions, the incision is made in the side (loin) or extended into the chest area.

A bladder catheter is normally inserted post operatively, to monitor urine output, and a drainage tube is sometimes placed through the skin to lie where the kidney was removed from.

Occasionally, it may be necessary to insert a stomach tube through your nose, if the operation was particularly difficult, to prevent distension of your stomach and bowel with air.

**What happens immediately after the procedure?**

After the operation, you may remain in the special recovery area of the operating theatres before returning to the ward; visiting times in these areas are flexible and will depend on when you return from the operating theatre. You will normally have a drip in your arm and, occasionally, a further drip into a larger vein in your neck.

You will be able to drink clear fluids immediately after your operation and start a light diet within one to three days. We will encourage you to mobilise as early as possible and to take fluids or food as soon as you are able.

We would expect your hospital stay to be about five to seven days but some people do go home sooner or may need to stay slightly longer.
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 insertion of a bladder catheter and wound drain
- ☐ Bulging of the wound due to damage to the nerves serving the abdominal wall muscles

**Occasional (between one in 10 and one in 50)**
- ☐ Bleeding requiring further surgery or transfusions
- ☐ Infection, pain or bulging of the incision site requiring further treatment
- ☐ Entry into the lung cavity requiring insertion of a temporary drainage tube
- ☐ Need of further therapy for cancer

**Rare (less than one in 50)**
- ☐ Anaesthetic or cardiovascular problems possibly requiring intensive care admission (including chest infection, pulmonary embolus, stroke, deep vein thrombosis, heart attack and death)
- ☐ Involvement or injury to nearby local structures (blood vessels, spleen, liver, lung, pancreas and bowel) requiring more extensive surgery
- ☐ The histological abnormality of the kidney may subsequently be shown not to be cancer
- ☐ Temporary, or occasionally permanent, dialysis may be required to improve your kidney function if your other kidney functions poorly

**What should I expect when I get 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.

It will be at 14 days before healing of the skin wound occurs but it may take up to two months before you feel fully recovered from the surgery. You may return to work when you are comfortable enough and your GP is satisfied with your progress.

It is advisable that you continue to wear your elasticated stockings for 14 days after you are discharged from hospital.

Many patients have persistent twinges of discomfort in the loin wound which can go on for several months.

After surgery through the loin, the wall of the abdomen around the scar will bulge due to nerve damage. This is not a hernia but can be helped by strengthening up the muscles of the abdominal wall by exercises.
What else should I look out for?
If you develop a temperature, increased redness, throbbing or drainage at the site of the operation, please contact your GP.

Any other post operative problems should also be reported to your GP, especially if they involve chest symptoms.

Are there any other important points?
It will be at least 14 to 21 days before the pathology results on your kidney are available. It is normal practice for the results of all biopsies to be discussed in detail at a multidisciplinary meeting before any further treatment decisions are made. You and your GP will be informed of the results after this discussion.

An outpatient appointment will be made for you four to six weeks after the operation when we will be able to inform you of the pathology results and give you a plan for follow up.

Once the results have been discussed, it may be necessary for further treatment but this will be discussed with you by your consultant or specialist nurse.

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.

After removal of the kidney through the loin, the wall of the abdomen around the scar will bulge due to nerve damage. This is not a hernia but can be helped by strengthening up the muscles of the abdominal wall by exercises.

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 need to see or reach your skin and if this is necessary they will use 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 to remove hair, as this can increase the risk of infection. Your healthcare team will be happy to discuss this with you.
Is there any research being carried out in this field at Addenbrooke’s Hospital?

Yes. As part of your operation, various specimens of tissue will be sent to the pathology department so that we can find out details of the disease and whether it has affected other areas. This information sheet has already described to you what tissue will be removed.

We would also like your agreement to carry out research on that tissue which will be left over when the pathologist has finished making a full diagnosis. Normally, this tissue is disposed of or simply stored. What we would like to do is to store samples of the tissue, both frozen and after it has been processed. Please note that we are not asking you to provide any tissue apart from that which would normally be removed during the operation.

We are carrying out a series of research projects which involve studying the genes and proteins produced by normal and diseased tissues. The reason for doing this is to try to discover differences between diseased and normal tissue to help develop new tests or treatments that might benefit future generations. This research is being carried out here in Cambridge but we sometimes work with other universities or with industry to move our research forwards more quickly than it would if we did everything here.

The consent form you will sign from the hospital allows you to indicate whether you are prepared to provide this tissue. If you would like any further information, please ask the ward to contact your consultant.

Who can I contact for more help or information?

**Oncology nurses**

*Uro-oncology nurse specialist*
01223 586748

*Bladder cancer nurse practitioner (haematuria, chemotherapy and 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.

**Other formats:**

If you would like this information in another language, large print or audio, please ask the department where you are being treated, to contact the patient information team: patient.information@addenbrookes.nhs.uk.
Please note: We do not currently hold many leaflets in other languages; written translation requests are funded and agreed by the department who has authored the leaflet.

**Document history**

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