York and Scarborough Teaching Hospitals
NHS Foundation Trust

Laparoscopic or Open Nephroureterectomy

Information for patients, relatives and carers

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ⓘ For more information, please contact:

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Contents **Page**

What is the evidence base for this information?

This publication 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 urological 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 removal of the kidney (and surrounding fat) for suspected cancer of the kidney. The whole ureter is removed either using a telescope or with a separate incision in the lower abdomen.

What are the alternatives to this procedure?

Observation alone, radiotherapy, systemic chemotherapy (given into the blood stream).

What should I expect before the procedure?

You will usually be admitted on the day of surgery. You will normally receive an appointment for pre-assessment 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.

You will be advised when not to eat or drink 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 or Clexane), that, along with the help of elasticated stockings provided by the ward, will help prevent thrombosis (clots) in the veins.

You should also be given another leaflet called “What you need to know when coming into hospital for surgery” that has detailed information on anaesthetics and their side effects.

Please be sure to inform your surgeon 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 regular prescription for warfarin, aspirin or Clopidogrel (Plavix®)
- a previous or current MRSA infection
- a high risk of variant-CJD (if you have received a corneal transplant, a neurosurgical dural transplant or previous injections of human-derived growth hormone).

At some stage during the admission process, you will be asked to sign the second part of the consent form (FYCON78-1 Laparoscopic or Open Nephroureterectomy) giving permission for your operation to take place, showing you understand what is to be done and confirming that you wish to proceed. 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. The form will be kept in your Patient Notes, and you will also be offered a copy for your own records.

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

Part or all of the procedure is usually performed using laparoscopic (‘key-hole’) technique. Sometimes the surgeon will use robotic-assisted surgery if this is available. Small scars are left where the keyhole surgery is performed, and the kidney is usually removed through an incision in the abdomen. You may require a second incision in the lower part of the abdomen to detach the ureter from the bladder; sometimes, this detachment can be performed using a telescope passed into the water pipe (urethra).

A bladder catheter is normally inserted post-operatively, to monitor urine output, and a drainage tube is usually placed through the skin into the bed of the kidney.

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?

In general terms, you should expect to be told how the procedure went, and you should:

- ask if what was planned to be done was achieved
- 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
- ensure that you are clear about what has been done and what is the next move

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 a catheter to drain urine into a bag.

You will be given fluids to drink and light diet at an early stage after the operation and we will encourage you to mobilise as early as possible.

In some cases we will recommend that a chemical is instilled into the bladder through the catheter the day after surgery. This chemical (mitomycin C) is a form of chemotherapy intended to reduce the risk of recurrent

tumour in the bladder. You will be informed by the surgeon after the operation if this is planned.

Typical hospital stay is one to two nights, and you will often be discharged from hospital wearing the catheter until the bladder has fully healed (for another 10-14 days).

Are there any risks or 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.

Almost all patients

- Pain or discomfort at the incision site.
- Shoulder tip pain due to irritation of your diaphragm
- Temporary abdominal bloating (gaseous distension)

Common (greater than 1 in 10)

- Temporary insertion of a bladder catheter and wound drain; recurrence of disease elsewhere in the urinary tract which requires regular telescopic examinations of the bladder for follow-up

Occasional (between 1 in 10 and 1 in 50)

- Bleeding, infection, pain or hernia at the incision site requiring further treatment

- Bleeding requiring transfusion or conversion to open surgery
- Need for additional treatment for cancer after surgery

Rare (less than 1 in 50)

- Recognised (or unrecognised) injury to organs/blood vessels requiring conversion to open surgery (or deferred open surgery)
- Entry into the lung cavity requiring insertion of a temporary drainage tube
- The abnormality in your kidney or ureter may turn out not to be cancer
- Involvement or injury to nearby local structures (blood vessels, spleen, liver, lung, pancreas and bowel) requiring more extensive surgery
- Persistent urine leakage from your bladder requiring prolonged catheterisation or further surgery
- Anaesthetic or cardiovascular problems possibly requiring intensive care (including chest infection, pulmonary embolus, stroke, deep vein thrombosis, heart attack and death)

Hospital-acquired infection

Your risk of getting an infection in hospital is approximately 8 in 100 (8%); this includes getting MRSA or a Clostridium difficile bowel infection.

This figure is higher if you are in a “high-risk” group of patients such as patients who have had:

- long-term drainage tubes (e.g. catheters);
- bladder removal;
- long hospital stays; or
- multiple hospital admissions.

What should I expect when I get home?

By the time of your discharge from hospital, you should:

- be given advice about your recovery at home
- ask when to resume normal activities such as work, exercise, driving, housework and sexual intimacy
- 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)
- ensure that you know when you will be told the results of any tests done on tissues or organs which have been removed.

You will be given a daily injection of a blood thinning drug called Fragmin (or Clexane) until you are discharged from hospital. Unless you take warfarin, you (and/or your partner) will be instructed on how to administer this before you leave hospital, as you will need to continue this treatment for a period of four weeks from the date of your operation.

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 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 least 14 days before healing of the wound occurs, but it may take up to six weeks 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. It is usual for there to be “bulging” in the wound when a loin incision has been used; this is due to the nerves supplying the abdominal muscles being weakened and is not a hernia, but it 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.

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.

Are there any other important points?

It will be at least 14-21 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 multi-disciplinary 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.

You will usually need to undergo regular bladder inspections to check that the growth that involved your kidney is not affecting the bladder lining.

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.

Is there any research being carried out in this area?

Before your operation, your surgeon or specialist nurse will inform you about any relevant research studies taking place, and, in particular, if any surgically-removed tissue may be stored for future study. If this is the case, you will be asked if you wish to participate and, if you agree, to sign a special form to consent to this.

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

Tell us what you think of this leaflet

We hope that you found this leaflet helpful. If you would like to tell us what you think, please contact: Mr B Blake-James, Consultant, York Hospital, Wigginton Road, York, YO31 8HE or telephone 01904 725846.

Teaching, training and research

Our Trust is committed to teaching, training and research to support the development of health and healthcare in our community. Healthcare students may observe consultations for this purpose. You can opt out if you do not want students to observe. We may also ask you if you would like to be involved in our research.

Patient Advice and Liaison Service (PALS)

PALS offers impartial advice and assistance to patients, their relatives, friends and carers. We can listen to feedback (positive or negative), answer questions and help resolve any concerns about Trust services.

PALS can be contacted on 01904 726262, or email yhs-tr.patientexperienceteam@nhs.net.

An answer phone is available out of hours.

Leaflets in alternative languages or formats

If you would like this information in a different format, including braille or easy read, or translated into a different language, please speak to a member of staff in the ward or department providing your care.

Patient Information Leaflets can be accessed via the Trust's Patient Information Leaflet website: www.yorkhospitals.nhs.uk/your-visit/patient-information-leaflets/

Owner	Mr B Blake-James, Consultant
Date first issued	June 2011
Review Date	May 2028
Version	3 (issued May 2025)
Approved by	Urology MDT
Document Reference	PIL 670 v3