# ROBOT ASSISTED LAPAROSCOPIC RADICAL NEPHROURETERECTOMY

## PATIENT GUIDE

### WHAT IS IT?

A laparoscopic nephroureterectomy is using keyhole surgery to remove one of your kidneys and its ureter. Your surgeon has suggested using the robot assisted approach to minimise risk of complications.

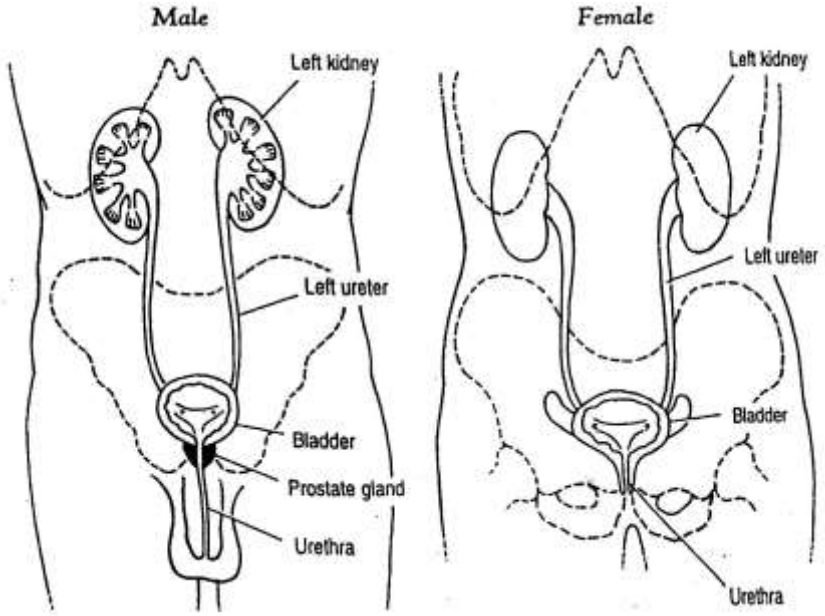
### WHY DOES THIS NEED TO BE DONE?

You have two kidneys which produce your urine. One of these kidneys has cancer within it and your surgeon has determined this needs to be removed. After the operation your body should function just as well regarding urine production as before despite only having one kidney. There is a small chance (1 in 50) of the long term kidney function tests not being as good as before but this for most people has no affect.

### WHY DO I NEED THE NEPHROURETERECTOMY PERFORMED LAPAROSCOPICALLY?

The kidneys lie deep in the back just in front of the lower ribs. The traditional method of removing kidneys because of their position requires large incisions at the back or the front of the abdomen. Your surgeon has chosen to remove your kidneys with keyhole surgery in order to minimise the trauma to you. This should reduce the length of recovery, the risk of complications, the postoperative discomfort and allow you to resume your normal life in a shorter period of time compared to the open method of removing a kidney.

### BASIC ANATOMY



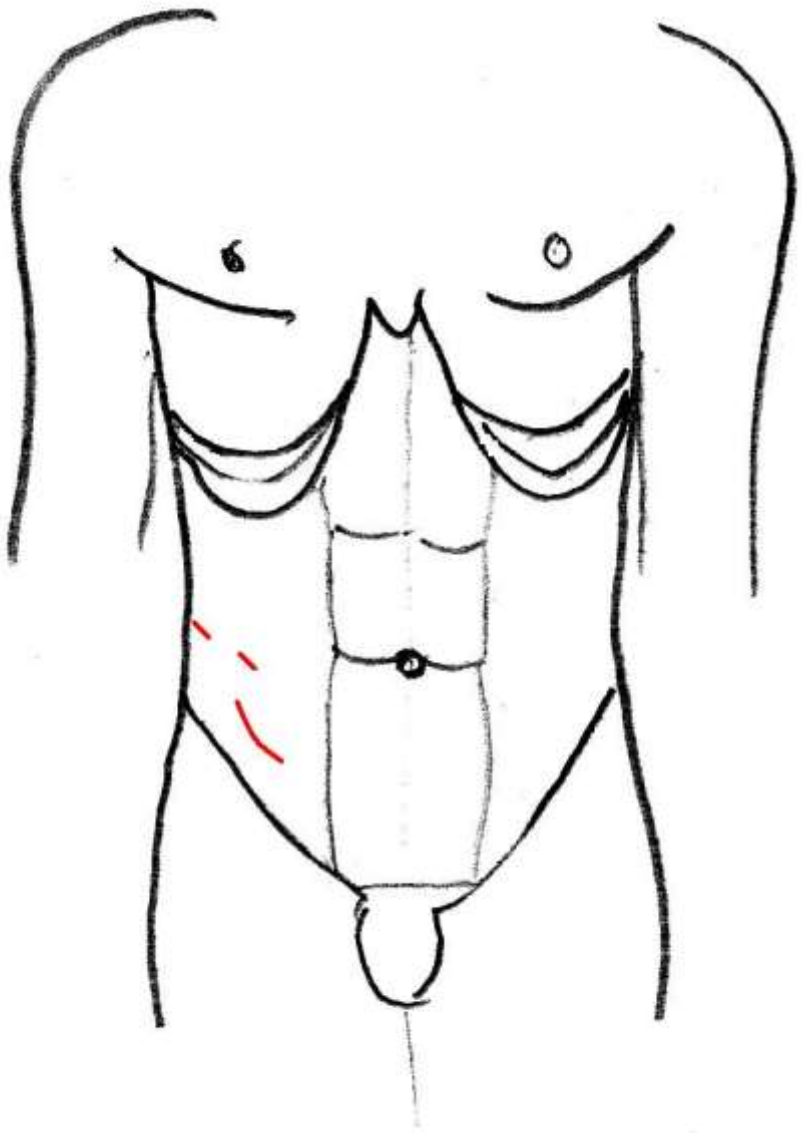

## WHAT PREPARATIONS ARE NEEDED PRIOR TO SURGERY?

A number of preoperative blood tests will be performed sometimes up to two weeks before the operation and in other circumstances these checks may be done the day before surgery. Time of your admission to hospital will be given to you by the surgical team. You will be given instructions of when the last time you can drink prior to the operation but the general rule is nothing must be taken orally for six hours before the operation.

## HOW IS THE OPERATION PERFORMED?

The operation is performed under general anaesthetic (you will be asleep with a breathing tube through your mouth.),and usually tales 11/2-3 hours.
The surgeon will make four small 10mm incisions in your abdomen. Access tubes called ports will be inserted through each of these.
Depending on the region of the disease this will either be at the front of the abdomen or in the flank (in the side below your ribs). Through one of these ports a laparoscopic camera will be inserted to see inside the abdomen, the kidney and surrounding organs. Through the others, instruments will be inserted, to allow the kidney to be removed and the blood vessels cut and clipped. Depending on the size and position of the tumour the amount of surrounding tissue may include the 'lymphatic' tissue that drains fluid from the kidney. Once the kidney has been successfully freed up from the surrounding tissues and the artery/vein to it divided it is scooped up through a small bag inserted through one of the wounds{see pictures below}. The bag is then extracted through that wound which is made slightly larger to allow the kidney to be removed intact and then sent for analysis and examination under the microscope in the laboratory.
A plastic drain may be left protruding from one of the port sites and is attached to the skin with a suture and drains into a bag by the side of the bed.

title = incisions expected



## WHAT HAPPENS AFTER THE OPERATION?

After the operation you will be taken to a recovery ward and following that you will be transferred to a normal ward. You will have a catheter in your bladder. This is a soft plastic tube which drains the urine from the bladder into a bag which hangs beside your bed. The catheter is kept in place by a small balloon inside the bladder which stops the catheter falling out and allows you to move around more freely. You may have a mask on providing oxygen and you will have a fine plastic tube (drip) into your arm which will allow fluids to go into your veins to keep you hydrated until you are eating and drinking normally. Very occasionally a fine tube (naso gastric) will be coming out of your nose to allow drainage of wind from your stomach.

## WILL IT HURT?

The wound may be painful and patients will have one of two types of administration of a continuous painkiller that may be required for up to 48hours post surgery. One is called a PCA ( patient.controlled analgesia). This is via a small drip into the arm that allows continuous infusion of painkiller and the patient has a hand button that they are able to press to increase the amount of the painkiller that is inserted via the pump as required. Other patients may have an epidural which is small plastic tube going into the back to administer a continuous drip of painkilling medication. As well as these two methods the patient will be given options of oral and intra-muscle injections of painkillers postoperatively as they require following discussion with the nursing staff. The type of continuous painkilling medication will be discussed with you by the anaesthetist prior to the operation. If an epidural (tube into the back) is required it will be inserted prior to the operation commencing. By 48 hours post surgery most of the patients require no continuous method of painkillers, requiring simply occasional oral medication.

## DRINKING AND EATING

Patients may feel sick for up to 24 hours postoperatively but this usually is transient and medication can be given to alleviate this. The majority of patients will start drinking within 24 hours after the operation often taking light diet leading up to commencement of full diet within 48hours.

## OPENING BOWELS?

It is quite normal for bowels not to be open for a number of days post surgery. Passing wind usually takes 48 to 72 hours and passing a formed stool may be longer than this. If this is uncomfortable laxatives can be given but in general patients do not have their hospital discharge delayed by the need to have their bowels open.

## THE DRAIN?

If a drain has been inserted it is removed usually within 48hrs of the operation. This does not require painkillers. The stitch to the skin is cut and the drain eased out of the wound. This seals up without needing any sutures.

## PASSING URINE?

The catheter in the bladder will be left in place for usually 3 days. You may be discharged home with the catheter in place connected to a drain bag that straps to your leg. You will receive instructions on caring for this. You will be readmitted to the ward for removal of this, which is a procedure requiring no covering pain killers but is usually performed after administering antibiotic into the arm.

## THE WOUND

The wound will have dressings which may show some staining with old blood in the first 24 hours. It is possible to see some bruising in the skin around the wound after 48 hours. The majority of wounds will be adhered together with stitches in the muscle under the skin and small clips in the skin itself. The small metal clips will be removed by the district nurse approximately 10 days after the operation.

## PROPHYLACTIC TREATMENT?

In order to reduce the risk of wound infection the anaesthetist will administer intravenous antibiotics at the time of the operation. In order to reduce the risk of thrombosis in the legs, stockings will be worn by patients at the time of the operation until discharge and a small injection of blood thinning medication will be given into the abdominal skin on a daily basis and you will be taught to self-administer this at home.

## WASHING

The area around the wound can be washed as soon as the dressing has been removed and shower are entirely appropriate 48hours following surgery despite having different tubes coming from the body.

## HOW LONG WILL I BE IN HOSPITAL?

Patients should plan to be in hospital for three days post surgery although occasionally patients do take a little longer. Depending on the reason for your kidney being removed an appointment will be made for you on discharge to be seen by the surgeon either 2 to 6 weeks post surgery.

## AFTER I LEAVE HOSPITAL – GENERAL ADVICE

You are likely to feel quite tired for a month following surgery. You will be gradually improving during this time although you will begin to physically perform tasks that you did prior to surgery within a week without risk of damage to you or the wounds. You will find that these will tire you more than usual. Aches and twinges in the wound can be felt for a number of weeks post surgery. You will be able to drive as soon as you can make an emergency stop without discomfort in the wound which is normally approximately a week following surgery and you can start a sexual relationship when the wound feels more comfortable.

## WHAT ARE THE POSSIBLE COMPLICATIONS?

There is a 1% chance that during the surgery difficulties will be encountered requiring proceeding to open kidney removal (conversion to open nephrectomy). Minor chest inflammation requiring breathing exercises are commonly seen but major infections requiring antibiotics occur in under 2%. Haemorrhage may necessitate blood transfusion in 2% of cases. Internal Urine leak from the bladder requiring prolonged catheterisation is seen in 2%. Infection at the wound site is seen in 1 to 2% of cases and hernia of the incision site is a rare complication in less than 1 in 500 Other complications are increasingly rare which includes injury to nearby organs or blood vessels or entry into the lung cavity.