



# ROBOTIC RADICAL PROSTATECTOMY FOR PROSTATE CANCER

## Procedure Specific Information

### 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?

Keyhole surgery to remove the prostate gland using robotic-assisted techniques

### What are the alternatives to this procedure?

Active monitoring (watchful waiting), open radical prostatectomy, external beam radiotherapy, brachytherapy, hormonal therapy, open perineal prostatectomy, open retropubic surgery or conventional laparoscopic (telescopic or minimally-invasive) approach.

You will already have had a discussion with your urologist and oncology nurse about prostate cancer. Please remember that early prostate cancer can be effectively treated. Most men with early prostate cancer will remain alive & healthy for many years to come. Radical prostatectomy is an operation which aims to remove the cancer and the prostate completely. The main advantage of surgery is that the cancer can be removed completely.

A radical prostatectomy is an operation carried out to remove the prostate for patients who have prostate cancer. The prostate, seminal vesicles & surrounding tissues are removed to provide the best possible chance of removing all the cancer.

Radical prostatectomy is an operation to remove the prostate, usually performed via an incision of approximately 10-15 cm in length.

There are several ways of doing a radical prostatectomy. These include:



- **Open radical prostatectomy**
- **Laparoscopic radical prostatectomy**
  - carried out in the standard way
  - carried out using a robotic assistance

The decision about which operation to have is one that you should make and no-one will mind which operation you have. If you need further information, please contact either the Urology Surgical Care Practitioner or the Prostate Nurse Practitioner.



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. Laparoscopic procedures are normally performed under general anaesthetic. They involve the use of a number of "ports" which allow access to the diseased organ. The length of time taken to perform the surgery varies between procedures but recovery is usually quicker than in open surgery. Your fitness for such an operation will be assessed and discussed by your urologist.

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 2%; 1 in 50) 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 be unable to proceed with the robotic operation.

Be assured that the decision about which operation to have is one that you will not make alone and no-one will mind which operation you have. If you want more information, please contact the Urology Surgical Care Practitioner or the Prostate Nurse Practitioner who can put you in touch with other sources of information

## What should I expect before the procedure?

You will usually be admitted on the day before your surgery although some hospitals now prefer to admit patients 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.

One important fact 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 6 hours before surgery and, immediately before the operation on the day of surgery, 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 (Clexane) which, together with the help of elasticated stockings provided by the ward, will help prevent thrombosis (clots) in the veins of your legs.

Before your procedure, the anaesthetic team will visit you to ensure that they have no concerns about anaesthetizing you. You are encouraged to ask them questions at this stage about any concerns or issues you have concerning the anaesthetic.

You will need to have a small enema in the morning prior to surgery. Once your bowels have been opened, you can have a shower and prepare yourself in a clean gown.

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 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.

## Fact File 1 • The NHS Constitution

### Same-Sex Accommodation

As a result of the new NHS constitution, the NHS is committed to providing same-sex accommodation in hospitals by April 2010. This is because feedback from patients has shown that being in mixed-sex accommodation can compromise their privacy. The NHS pledges that:

- sleeping and washing areas for men and women will be provided
- the facilities will be easy to get to and not too far from patients' beds

To help accomplish this, the Department of Health has announced specific measures designed to “all but eliminate mixed-sex accommodation” by 2010. These include:

- more money for improvements in hospital accommodation
- providing help and information to hospital staff, patients and the public
- sending improvement teams to hospitals that need extra support
- introducing measures so that the Department can see how hospitals are progressing

## 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 be transferred to the operating theatre on your bed and you will be taken first to the anaesthetic room. They may put a drip into your arm or neck to allow them access to 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 Da Vinci® prostatectomy is an operation to remove the prostate using laparoscopic techniques but with smaller incisions to remove the gland. A robotic console is placed beside you in the operating theatre. Attached to the console are three robotic arms; two for instruments and one for a high-magnification 3-D camera to allow the surgeon to see inside your abdomen. The two robotic arms have the ability to hold various instruments attached to them and allow the surgeon to carry out your operation. The instruments are approximately 7mm in width. The instruments have a greater range of movement than the human hand and, because of their size, they allow the surgeon to carry out the operation using 3-D imaging in a small space within the body.

With robotic surgery, the instruments are placed on to the robotic arms through small port holes into your abdomen. The operating surgeon sits in the same room but away from the



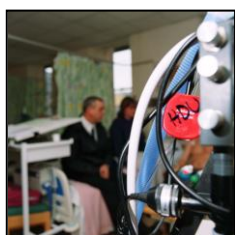
patient and is able to carry out more controlled & precise movements using robotic assistance. The robot does not, of course, do the operation. The instruments are controlled by the surgeon (who does the operation) and the robot cannot work on its own.

## 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

Once your surgery is complete, you will be taken to the recovery area. Although you have had minimally-invasive surgery, it is still possible that you may have some pain. You will wake up with a catheter in your bladder, a wound drain from your abdomen and 6 small incisions where the robotic port sites have been closed.



You will be given clear fluids to drink. It is very important that, whilst you are in the recovery area, you let the staff know if you feel any pain or become nauseous so that they can administer the appropriate medication. Once the anaesthetic staff, surgeons & nursing staff have agreed that your condition is stable, you will be transferred back to the ward. You will be encouraged, even in the recovery area, to sit out of bed in a chair.

Once back on the ward, you must be prepared to mobilise actively. Ideally, we would like you to go home the day after your operation.

Your catheter will remain in for approximately 7 days to allow the new join (anastomosis) between your bladder and urethra to heal. Your abdominal drain will generally be removed after 12 hours (if one was put in). The average length of stay for this procedure is 48 hours, with the majority of patients being discharged within 24 hours of surgery.

You will be discharged once you have had your bowels open, are mobilising safely as you did before your admission, are able to care for your catheter/leg bags and your pain is well-controlled on appropriate tablets taken by mouth.

## 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.



### **Common (greater than 1 in 10)**

- Temporary insertion of a bladder catheter
- Temporary difficulties with urinary control
- Impairment of erections even if the nerves can be preserved (20-50% of men with good pre-operative sexual function)
- Inability to ejaculate or father children because the structures which produce seminal fluid have been removed (occurs in 100% of patients)
- Discovery that cancer cells have already spread outside the prostate requiring further treatment

### **Occasional (between 1 in 10 and 1 in 50)**

- Scarring at the bladder exit resulting in weakening of the urinary stream and requiring further surgery (2-5%)
- Severe urinary incontinence (temporary or permanent) requiring pads or further surgery (2-5%)
- Blood loss requiring transfusion or repeat surgery
- Further treatment at a later date, including radiotherapy or hormone treatment
- Lymph collection in the pelvis If lymph node sampling is performed
- Some degree of mild constipation can occur; we will give you medication for this but, If you have a history of piles, you need to be especially careful to avoid constipation
- Apparent shortening of the penis; this is due to removal of the prostate gland causing upward displacement of the urethra to allow it to be re-joined to the bladder neck
- Development of a hernia related to the site of the port insertion
- Development of a hernia in the groin area at least 6 months after the operation

### **Rare (less than 1 in 50)**

- Anaesthetic or cardiovascular problems possibly requiring intensive care admission (including chest infection, pulmonary embolus, stroke, deep vein thrombosis, heart attack and death)
- Pain, infection or hernia at incision sites
- Rectal injury requiring a temporary colostomy

### **Hospital-acquired infection**

- Colonisation with MRSA (0.9% - 1 in 110)
- Clostridium difficile bowel infection (0.2% - 1 in 500)
- MRSA bloodstream infection (0.08% - 1 in 1250)

The rates for hospital-acquired infection 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?

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



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.

When you are discharged from the ward, you will need some comfortable, loose clothing as you may find that your abdomen is uncomfortable & swollen.

You will need someone at home with you for the first few days after you are discharged. A 2-4 week convalescence period is usually necessary after laparoscopic surgery. This is less than that experienced after an operation where patients may feel weak and tired for several months.

## How much pain will I experience?

Since the surgery is performed through a small incision, most patients experience much less pain than with open surgery. Patients tend to need less pain medication and, after one week, very few men feel any pain at all.

## When can I exercise?

Light walking is encouraged straight after the procedure. After two weeks, jogging and aerobic exercise is permitted. After four weeks, you may resume heavy lifting.

## Can I shower or bath?

Yes. The stitches in your abdomen are dissolvable. We recommend that you rinse any soap thoroughly from your body as this may irritate the wounds. You should gently pat yourself dry to minimise the risk of infection.



## When can I resume sexual activity?

This will depend on whether a nerve-sparing procedure was possible at the time of surgery. We ask that you take particular note of any erections or feelings you do have and report them on your follow-up appointments to the consulting team.

If a nerve-sparing procedure has been performed, we will normally start you on medication such as Viagra or Cialis when you return for your results 6 weeks after surgery. We would recommend that you take this initially 2-3 times per week in order to help improve the blood flow into the penis for rehabilitation of your erections. We would not expect this to result in erections immediately and, in fact, some patients may take as long as 18 months to recover erectile function. Additionally, vacuum devices may be used either alone or in conjunction with the above. If oral medication proves to be unsuccessful, we can then arrange for you to be seen by an erectile dysfunction specialist nurse to discuss other alternatives (such as injection treatment).

## When can I return to work?

Please allow a couple of weeks' recuperation before returning to work. If your work entails heavy lifting, please speak to your consultant about this prior to leaving hospital.

## What else should I look out for?

If you develop a temperature, increased redness, throbbing or drainage at the site of your operation, please contact your GP. If you have problems with your catheter (especially if it falls out), ask your GP to contact the on-call urologist as soon as possible. If you become unable to pass urine after your catheter has been removed, you should return immediately to hospital for further treatment.

## Are there any other important points?

To be prepared for your catheter removal and any potential temporary urine leakage, you should ensure that you have your own personal supply of bladder weakness products (pads designed for male underwear) at home prior to attending for your trial without catheter. You will need to bring two pads with you to your appointment for catheter removal.

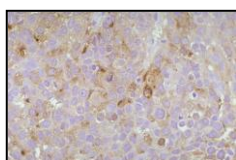
These pads can be obtained from various sources:

- **Your local pharmacy or supermarket** – they may need to be specially ordered
- **By phone.** You can place an order by calling Tena Direct on 0800 393 431 (this is a Freephone number). You can pay by credit or debit card. Lines are open Monday to Friday 09.00hr to 17.00hr (enquiries may be diverted to an answer machine if all lines are busy).
- **On-line** at [www.tenadirect.co.uk](http://www.tenadirect.co.uk) where you can select the products you need and complete your purchase using the secure on-line payment system.

The ward will provide one small pack of pads prior to your discharge so we advise that you obtain an additional supply in adequate time so that you have them at home following surgery; you may find it difficult to obtain them in the short period between discharge and your appointment for catheter removal.

It is common to experience some temporary loss of control over the passage of urine. This tends to settle within 3-6 months but, during this period, you may need to continue to wear absorbent pads. As discussed before your operation, a small minority of patients will experience severe incontinence after the procedure; if this is the case, additional support and follow-up can be arranged.

To improve urinary control, pelvic floor exercises are helpful. You will have been shown how to do these before your surgery and it is beneficial to have started these exercises in the period before your operation. They will need to be continued after the catheter has been removed.



It will be at least 14-21 days before the final pathology results on your prostate are available. It is normal practice for 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.

You will receive an appointment to attend the outpatient clinic approximately 6 weeks after surgery. This is to allow the Consultant/Specialist registrar to find out how you are recovering and to discuss the findings of the pathology report on your prostate specimen.

You will be followed up closely after the operation, chiefly by means of the prostate blood tests (PSA). This level should remain near zero after surgery but, if the PSA rises, this indicates a return of the cancer which may require further treatment in the form of radiotherapy or drugs.

You may also find that you have difficulty achieving an erection; this will depend on whether it was possible for your surgeon to preserve the nerves (of Walsh) running alongside the prostate.

Depending on your function before the operation, and whether it was possible to preserve these nerves, problems with erection can occur. The risk of this problem varies:

- **Very high** (more than 80%; 8 out of 10 men), if the erections were not good beforehand and the characteristics of the tumour mean that it was not advisable to preserve the nerves
- **Moderately high** (60%; 6 out of 10) if only one nerve could be saved
- **Moderate** (30-40%; 3-4 out of 10) if both nerve bundles were saved

Erection problems can be helped by treatments ranging from tablets to injections. It is highly unlikely that you will lose your sex drive (libido) as a result of the operation.

## What the National Institute of Health & Clinical Excellence (NICE) has said

This procedure can be offered routinely provided that doctors are sure the patient understands what is involved and that the results are monitored. The NICE guidance can be found in more detail at (<http://guidance.nice.org.uk/IPG193>).

## Are we assessing how good this operation is?

Yes. We are making a careful assessment. The operation will be carried out by a specific team of surgeons who have been fully trained.

## What is the availability in the UK?

The Da Vinci® system has been used extensively throughout the USA and Europe in many different areas of surgery. It has been used for mitral valve repair (in cardiac surgery), Nissen fundoplication for gastric reflux and gastric bypass surgery for obesity (in gastrointestinal surgery)

At present there are three Da Vinci® robotic systems available in the UK.

## When can I return to driving?

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 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.



## Who can I contact for more help or information?

For further information on the internet, here are some useful sites to explore:

[Best Health](#) (prepared by the British Medical Association)

[NHS Clinical Knowledge Summaries](#) (formerly known as Prodigy)

[NHS Direct](#)

[Patient UK](#)

[Royal College of Anaesthetists](#) (for information about anaesthetics)

[Royal College of Surgeons](#) (patient information section)

## What should I do with this information?

Thank you for taking the trouble to read this publication. 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 publication to be filed in your hospital records for future reference, please let your Urologist or Specialist Nurse know. However, if you do agree to proceed with the scheduled procedure, you will be asked to sign a separate consent form which will be filed in your hospital record. You will, if you wish, be provided with a copy of this consent form.

I have read this publication and I accept the information it provides.

Signature..... Date.....



## How can I get information in alternative formats?

Please ask your local NHS Trust or PALS network if you require this information in other languages, large print, Braille or audio format.



Most hospitals are smoke-free. Smoking increases the severity of some urological conditions 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**

## Disclaimer

While every effort has been made to ensure the accuracy of the information contained in this publication, no guarantee can be given that all errors and omissions have been excluded. No responsibility for loss occasioned by any person acting or refraining from action as a result of the material in this publication can be accepted by the British Association of Urological Surgeons Limited.

## Fact File 2 • The NHS Constitution Patients' Rights & Responsibilities

The constitution, as a result of extensive discussions with staff and the public, sets out new rights for patients which will help improve their experience within the NHS. These new rights include:

- a right to choice and a right to information that will help them make that choice
- a right to drugs and treatments approved by NICE when it is considered clinically appropriate
- a right to certain services such as an NHS dentist and access to recommended vaccinations
- the right that any official complaint will be properly and efficiently investigated, and that they be told the outcome of the investigations
- the right to compensation and an apology if they have been harmed by poor treatment

The constitution also lists patient responsibilities, including:

- providing accurate information about their health
- taking positive action to keep themselves and their family healthy
- trying to keep appointments
- treating NHS staff and other patients with respect
- following the course of treatment that they are given
- giving feedback, both positive and negative, after treatment