Laparoscopic removal of the adrenal gland: procedure-specific information

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 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 adrenal gland through several keyhole incisions. It requires placement of a telescope and operating instruments into your abdominal cavity using 3-4 small incisions. One incision may need to be enlarged to remove the adrenal gland.

What are the alternatives to this procedure?
Observation, open surgery.
What should I expect before the procedure?
You will usually be admitted on the same day as your surgery. You will normally receive an appointment for pre-assessment, approximately 14 days before your admission, 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 asked not to eat or drink for 6 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.

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 or Clopidogrel (Plavix®)
- 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.
A bladder catheter is normally inserted during the operation to monitor urine output and a drainage tube may be placed through the skin into the bed of the adrenal gland.

**What happens immediately after the procedure?**
You will be given fluids to drink from an early stage after the operation and you will be encouraged to mobilise as soon as you are comfortable to prevent blood clots forming in your legs. The wound drain and catheter are normally removed after 24-48 hours.

The average hospital stay is 3-5 days.

**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 1 in 10)**
- Temporary shoulder tip pain
- Temporary abdominal bloating
- Temporary insertion of a bladder catheter and wound drain
- Conversion to open surgery or requiring blood transfusion (approximately 14%)

**Occasional (between 1 in 10 and 1 in 50)**
- Bleeding, infection, pain or hernia of the incision requiring further treatment

**Rare (less than 1 in 50)**
- Entry into lung cavity requiring insertion of a temporary drain
- The histological abnormality may eventually turn out not to be cancer
- 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 (0.02%, 1 in 5,000)
- Clostridium difficile bowel infection (0.04%; 1 in 2,500)
- MRSA bloodstream infection (0.01%; 1 in 10,000)

*(These rates 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?

Before you leave hospital, the team will ensure you are safe to be discharged home. 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, 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 10-14 days to recover fully from the procedure and most people can return to normal activities after 2-4 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 6-12 weeks after the operation. At this time, we will be able to inform you of the results of pathology tests on the removed adrenal gland.

It will be at least 14-21 days before the pathology results on the tissue removed 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.

Your remaining adrenal gland will serve the full function originally carried out by the pair of glands. It is sometimes necessary, however, to take medications to help the remaining gland recover (usually in patients with Cushing’s syndrome). If both glands have to be removed (this is very rare), medications will need to be taken to replace their function.

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 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 field at Addenbrooke’s Hospital?

All laparoscopic procedures are subject to continuous audit by the British Association of Urological Surgeons Section of Endourology. In addition, the National Institute of Health & Clinical Excellence (NICE) requires that we maintain a careful review of laparoscopic procedures.

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 247608 or 216897 or bleep 154-548
- Surgical Care Practitioner
  01223 348590 or 256157 or bleep 154-134

**Non-Oncology Nurses**

- Urology Nurse Practitioner (incontinence, urodynamics, catheter patients)
  01223 274608 or 586748
- Urology Nurse Practitioner (stoma care)
  01223 349800

**Patient Advice & 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
  derek.fraser@addenbrookes.nhs.uk
- Mail
  The Chaplaincy, Box No 105
What should I do with this form?
Thank you for taking the trouble to read this information sheet. 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 form 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 information sheet and I accept the information it provides.

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

How can I get information in alternative formats?
Please ask if you require this information in other languages, large print or audio format: 01223 216032 or patient.infoformation@addenbrookes.nhs.uk

Polish Informacje te można otrzymać w innych językach, w wersji dużym drukiem lub audio. Zamówienia prosimy składać pod numerem: 01223 216032 lub wysyłając e-mail:
patient.information@addenbrookes.nhs.uk

Portuguese Se precisar desta informação num outro idioma, em impressão de letras grandes ou formato áudio por favor telefone para o 01223 216032 ou envie uma mensagem para:
patient.information@addenbrookes.nhs.uk

Russian Если вам требуется эта информация на другом языке, крупным шрифтом или в аудиоформате, пожалуйста, обращайтесь по телефону 01223 216032 или на вебсайт
patient.information@addenbrookes.nhs.uk

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