Patient information and consent to surgery for abdominal aortic aneurysm (AAA)

Key messages for patients

- Please read your admission letter carefully. It is important to follow the instructions we give you about not eating or drinking or we may have to postpone or cancel your operation.

- Please read this information carefully, you and your health professional will sign it to document your consent.

- You must not have anything to eat six hours before and no clear fluids two hours before your operation.

- It is important that you bring the consent form with you when you are admitted for surgery. You will have an opportunity to ask any questions from the surgeon or anaesthetist when you are admitted. You may sign the consent form either before you come or when you are admitted.

- Please bring with you all of your medications and its packaging (including inhalers, injections, creams, eye drops, patches, insulin and herbal remedies), a current repeat prescription from your GP, any cards about your treatment and any information that you have been given relevant to your care in hospital, such as x rays or test results.

- Simple painkillers such as paracetamol and ibuprofen may be required after surgery. Simple bowel medication such as senna and lactulose may be required after surgery. It is suggested that you discuss with your pharmacist and have a seven day supply of these medications at home to take as you need according to the instructions.

- Take your medications as normal on the day of the procedure unless you have been specifically told not to take a drug or drugs before or on the day by a member of your medical team. If you have diabetes please ask for specific individual advice to be given on your medication at your pre-operative assessment appointment.

- Please call the vascular surgery nurse practitioner 01223 245151 ext 6382 if you have any questions or concerns about this procedure.

After the procedure we will file the consent form in your medical notes and you may take this information leaflet home with you.

Important things you need to know

Patient choice is an important part of your care. You have the right to change your mind at any time, even after you have given consent and the procedure has started (as long as it is safe and practical to do so). If you are having an anaesthetic you will have the opportunity to discuss this with the anaesthetist, unless the urgency of your treatment prevents this.

We will also only carry out the procedure on your consent form unless, in the opinion of
the health professional responsible for your care, a further procedure is needed in order to save your life or prevent serious harm to your health. However, there may be procedures you do not wish us to carry out and these can be recorded on the consent form. We are unable to guarantee that a particular person will perform the procedure. However the person undertaking the procedure will have the relevant experience.

All information we hold about you is stored according to the Data Protection Act 1998.

About surgery for abdominal aortic aneurysm (AAA) – repair of a ballooned artery in your abdomen

An arterial aneurysm is an abnormal dilatation (ballooning) of an artery caused by a weakness in the wall of the artery. Generally an artery is called aneurysmal when it increases to twice its normal size.

Any artery in the body can develop an aneurysm but some arteries are more commonly affected than others. The aorta, which is the main artery in the abdomen, is commonly affected. Other arteries affected are the iliac arteries (in the pelvis), the femoral arteries (in the thigh), and the popliteal arteries (behind the knee).

An abdominal aortic aneurysm (AAA) is an abnormal dilatation of the aorta, which is the main artery in the body and carries blood away from the heart. The other arteries in the body are supplied by the aorta, for example those that supply blood to the head, limbs and body organs. The part of the aorta that lies below the kidney arteries and above the iliac (pelvic arteries) is particularly prone to this problem.

The main risks of aneurysms are either that they burst (leading to life-threatening bleeding) or they block, thus cutting off the blood supply to the areas they support. Aneurysms are more common in people aged over 60 years. They are also more common in males than female and in those who smoke or have smoked in the past. Aneurysms can also run in families.

Diagnosis of AAA

The majority of AAAs cause no symptoms and are discovered by chance. A routine examination by a doctor or an ultrasound scan performed for some other reason may pick up the presence of an aneurysm. Alternatively, some patients notice an abnormal pulsation in their abdomen (tummy). Routine screening for aneurysms has been established for men aged 65 throughout the UK.

Investigation of AAA

The majority of AAA can be diagnosed with a simple ultrasound scan, which also provides an accurate measurement of its size. The risk of rupture (bursting) of AAA is related to its size: AAA bigger than 5.5 cm in diameter are at risk of rupture and require surgical repair to avoid this.
Smaller aneurysms are monitored with ultrasound scans every three to six months, and surgery is only considered if they increase in size, or start to cause pain or other symptoms.

When an aneurysm requires surgical repair, other investigations are arranged including a CT body scan. This provides accurate anatomical information regarding the aneurysm so the operation can be planned in more detail. The CT is used to decide if a stent is possible for the AAA or whether an open operation is required.

Other investigations to measure the function of the heart, lungs and kidneys might also be arranged, because this surgery tends to put an extra strain on these organs.

**Intended benefits**
To prevent the aneurysm from bursting.

**Who will perform my procedure?**
This procedure will be performed by the consultant and the specialist registrar.

**Before your procedure**
Most patients attend a nurse led pre-admission clinic. You may also meet one of the anaesthetist and vascular surgeon during the Preassessment period. We will ask for details of your medical history and carry out any necessary clinical examinations and investigations. Please ask us any questions about the procedure, and feel free to discuss any concerns you might have at any time.

We will ask if you take any tablets or use any other types of medication either prescribed by a doctor or bought over the counter in a pharmacy. Please bring all your medications and any packaging (if available) with you. Please tell the ward staff about all of the medicines you use. If you wish to take your medication yourself (self-medicate), please ask your nurse. Pharmacists visit the wards regularly and can help with any medicine queries.

This procedure involves the use of anaesthesia. We explain about the different types of anaesthesia or sedation we may use at the end of this leaflet. You will see an anaesthetist before your procedure.

Depending on the arrangements made for you, you will be admitted to the ward the day before or on the day of surgery. The ward nursing staff will show you your bed and help you settle in. They will explain the preparations for the operating theatre, and show you where everything is. You **must not** have anything to eat or drink for at least six hours before your operation.

Most people who have this type of procedure will need to stay in hospital for seven to ten days.

*Abdominal aortic aneurysm (AAA), CF200, V8, July 2018*
Your surgeon will visit you before your operation to explain the procedure again and to answer any questions.

**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.

During surgery, you may lose blood. If you lose a considerable amount of blood your doctor may want to replace the loss with a blood transfusion as significant blood loss can cause you harm. The blood transfusion can involve giving you other blood components such as plasma and platelets which are necessary for blood clotting. Your doctor will only give you a transfusion of blood or blood components during surgery, or recommend for you to have a transfusion after surgery, if you need it.

Compared to other everyday risks the likelihood of getting a serious side effect from a transfusion of blood or blood component is very low. Your doctor can explain to you the benefits and risks from a blood transfusion. Your doctor can also give you information about whether there are suitable alternatives to blood transfusion for your treatment. There is a patient information leaflet for blood transfusion available for you to read.

**During the procedure**

At the start of the surgery, we make an incision (cut) in the abdomen. Through this incision we dissect (make visible) the normal aorta above and below the aneurysm and then stop the blood flow through the aneurysm by applying vascular clamps.

We then replace the aneurysmal (damaged) section of the aorta by sewing in a tube of special vascular graft material. The blood flow through the aorta can then be restored and the incision closed. Commonly, patients recover from aneurysm surgery in the theatre recovery area or intensive therapy unit (ITU).

**After the procedure**

Once your surgery is completed you will usually be transferred to the recovery ward where you will be looked after by specially trained nurses, under the direction of your anaesthetist. The nurses will monitor you closely until the effects of any general anaesthetic have adequately worn off and you are conscious. They will monitor your heart rate, blood pressure and oxygen levels too.

You may be given oxygen via a facemask, fluids via your drip and appropriate pain relief until you are comfortable enough to return to your ward.

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At this time, you might find there is a urinary catheter inserted into your bladder, which allows your urine to drain into a bag. This is a temporary measure to prevent urine becoming retained which can cause your blood pressure to become unstable.

Some patients are transferred to the intensive care unit (ICU/ITU), high dependency unit (HDU), intermediate dependency area (IDA) or fast track/overnight intensive recovery (OIR). These are areas where you will be monitored much more closely because of the nature of your operation or because of certain pre-existing health problems that you may have. If your surgeon or anaesthetist believes you should go to one of these areas after your operation, they will tell you and explain to you what you should expect.

**If there is not a bed in the necessary unit on the day of your operation, your operation may be postponed as it is important that you have the correct level of care after major surgery.**

**Eating and drinking.** There will be a delay of two to three days before you can get back to eating and drinking. During this time we gradually build up the volume you can drink until you can manage normal amounts.

**Getting about after the procedure.** We will help you to become mobile as soon as possible after the procedure. This helps improve your recovery and reduces the risk of certain complications. After one to two days you will be sitting out of bed. After three to four days you will be able to start walking on the ward. If you have any mobility problems, we can arrange nursing or physiotherapy help.

**Leaving hospital.** While you are staying with us, the surgical team will visit you every day and can answer any questions you might have about your surgery. On each visit, we will assess your progress and work out the best time for you to be discharged from hospital. Most people are discharged within seven to ten days after the operation but if complications occur the stay is longer.

It will probably take at least six weeks before you feel as well as you did before this surgery.

**Check-ups and results:** Following discharge from the ward we will make arrangements to review you in the outpatient clinic in six to eight weeks time. The good news is that once you have recovered from this surgery, you can return to normal activity and a normal life expectancy.
Patient Information

Significant, unavoidable or frequently occurring risks of this procedure

Open repair of AAA is a major surgical procedure though efforts have been made to make the operation as safe as possible and rates of major complications are at an all time low. Results from surgery are published at https://www.vsqip.org.uk/. Despite these recent advances a small number of patients do not survive the operation. In 2017, the in-hospital mortality following open AAA repair was 2.9%. In Cambridge the mortality is consistently lower than this.

As the aorta is such an important blood vessel other serious complications can occur. Rare, but significant complications include

- Damaged blood supply to the legs requiring further surgery. In rare circumstances a major amputation of the leg is required
- Damaged blood supply to the kidneys and occasional need for dialysis to support the kidneys
- Damaged blood supply to the spinal cord and neurological damage to the lower limbs (paraplegia). This is rare and occurs in 1/500 cases
- Damaged blood supply to the intestines. Occasionally further operations are required for this and can require formation of a stoma on the abdominal wall. This occurs in approximately 1/300 patients.
- Occasionally there are bleeding complications after the operation requiring a return to the operating theatre.
- Clamping the aorta prior to repair can put some strain on the heart and this sometimes leads to a myocardial infarction (heart attack)

Other complications that can occur include infections (in the lungs, wound, abdomen or urinary system) and something called ‘ileus’. This is where the bowels take a while to start working after the procedure. In approximately 1/10 patients this can be prolonged (>3-4 days) and require feeding through a vein.

Once you leave hospital, open repair of AAA is for the most part a durable operation and further surveillance is not required. There are, however, some longer term potential complications. These include incisional hernia and intestinal obstruction (caused by scar tissue). Occasionally further surgery is required to address these. Approximately 10-20% of men experience erectile dysfunction post-operatively.

Rarely the graft that is implanted to your aorta can become infected. This is rare but can be a very serious complication if it does occur and further surgery is sometimes required.
Alternative procedures that are available

Monitoring only
Although intervention is considered when the AAA reaches 5.5cm it is not appropriate for all patients. For example, there may be patients that are very high risk for surgical intervention because of pre-existent illnesses. In this group continued surveillance and a higher intervention threshold may be appropriate.

Stenting the aneurysm is an alternative technique. This is a smaller, x-ray guided operation to put a stent in the aneurysm. If your CT scan shows this is possible for your AAA, the details of this will be discussed with you. Not all aneurysms can be stented.

Information and support
We will give you additional information in the form of patient information leaflets. Please contact the vascular surgery nurse practitioner 01223 245151 extension 6382 if you have any questions or anxieties.

Further information is available from The Vascular Society Website: http://www.vascularsociety.org.uk

Anaesthesia
Anaesthesia means ‘loss of sensation’. There are three types of anaesthesia: general, regional and local. **The type of anaesthesia chosen by your anaesthetist depends on the nature of your surgery as well as your health and fitness.** Sometimes different types of anaesthesia are used together.

**Before your operation**
Before your operation you will meet an anaesthetist who will discuss with you the most appropriate type of anaesthetic for your operation, and pain relief after your surgery.

To inform this decision, he/she will need to know about:

- your general health, including previous and current health problems
- whether you or anyone in your family has had problems with anaesthetics
- any medicines or drugs you use
- whether you smoke
- whether you have had any abnormal reactions to any drugs or have any other allergies
- your teeth, whether you wear dentures, or have caps or crowns.

Your anaesthetist may need to listen to your heart and lungs, ask you to open your mouth and move your neck and may review your test results.
Pre-medication
You may be prescribed a ‘premed’ prior to your operation. This a drug or combination of
drugs which may be used to make you sleepy and relaxed before surgery, provide pain
relief, reduce the risk of you being sick, or have effects specific for the procedure that you
are going to have or for any medical conditions that you may have. Not all patients will be
given a premed or will require one and the anaesthetist will often use drugs in the
operating theatre to produce the same effects.

Moving to the operating room or theatre
You will usually change into a gown before your operation and we will take you to the
operating suite. When you arrive in the theatre or anaesthetic room, monitoring devices
may be attached to you, such as a blood pressure cuff, heart monitor (ECG) and a monitor
to check your oxygen levels (a pulse oximeter).
An intravenous line (drip) may be inserted and you may be asked to breathe oxygen
through a face mask.

It is common practice nowadays to allow a parent into the anaesthetic room with children;
as the child goes unconscious, the parent will be asked to leave.
Before starting your anaesthesia the medical team will perform a check of your
name, personal details and confirm the operation you are expecting.

General anaesthesia
During general anaesthesia you are put into a state of unconsciousness and you will be
unaware of anything during the time of your operation. Your anaesthetist achieves this by
giving you a combination of drugs.

While you are unconscious and unaware your anaesthetist remains with you at all times.
He or she monitors your condition and administers the right amount of anaesthetic drugs
to maintain you at the correct level of unconsciousness for the period of the surgery. Your
anaesthetist will be monitoring such factors as heart rate, blood pressure, heart rhythm,
body temperature and breathing. He or she will also constantly watch your need for fluid or
blood replacement.

What will I feel like afterwards?
How you will feel will depend on the type of anaesthetic and operation you have had, how
much pain relieving medicine you need and your general health.

Most people will feel fine after their operation. Some people may feel dizzy, sick or have
general aches and pains. Others may experience some blurred vision, drowsiness, a sore
throat, headache or breathing difficulties.

You may have fewer of these effects after local or regional anaesthesia. When the effects
of the anaesthesia wear off you may need pain relieving medicines.
What are the risks of anaesthesia?

In modern anaesthesia, serious problems are uncommon. Risks cannot be removed completely, but modern equipment, training and drugs have made it a much safer procedure in recent years. The risk to you as an individual will depend on whether you have any other illness, personal factors (such as smoking or being overweight) or surgery which is complicated, long or performed in an emergency.

**Very common (1 in 10 people) and common side effects (1 in 100 people)**
- Feeling sick and vomiting after surgery
- Sore throat
- Dizziness, blurred vision
- Headache
- Bladder problems
- Damage to lips or tongue (usually minor)
- Itching
- Aches, pains and backache
- Pain during injection of drugs
- Bruising and soreness
- Confusion or memory loss

**Uncommon side effects and complications (1 in 1000 people)**
- Chest infection
- Muscle pains
- Slow breathing (depressed respiration)
- Damage to teeth
- An existing medical condition getting worse
- Awareness (becoming conscious during your operation)

**Rare (1 in 10,000 people) and very rare (1 in 100,000 people) complications**
- Damage to the eyes
- Heart attack or stroke
- Serious allergy to drugs
- Nerve damage
- Death
- Equipment failure

Deaths caused by anaesthesia are very rare. There are probably about five deaths for every million anaesthetics in the UK.
Information about important questions on the consent form

1 Creutzfeldt Jakob Disease (‘CJD’)

We must take special measures with hospital instruments if there is a possibility you have been at risk of CJD or variant CJD disease. We therefore ask all patients undergoing any surgical procedure if they have been told that they are at increased risk of either of these forms of CJD. This helps prevent the spread of CJD to the wider public. A positive answer will not stop your procedure taking place, but enables us to plan your operation to minimise any risk of transmission to other patients.

2 Photography, Audio or Visual Recordings

As a leading teaching hospital we take great pride in our research and staff training. We ask for your permission to use images and recordings for your diagnosis and treatment, they will form part of your medical record. We also ask for your permission to use these images for audit and in training medical and other healthcare staff and UK medical students; you do not have to agree and if you prefer not to, this will not affect the care and treatment we provide. We will ask for your separate written permission to use any images or recordings in publications or research.

3 Students in training

Training doctors and other health professionals is essential to the NHS. Your treatment may provide an important opportunity for such training, where necessary under the careful supervision of a registered professional. You may, however, prefer not to take part in the formal training of medical and other students without this affecting your care and treatment.

4 Use of Tissue

As a leading bio-medical research centre and teaching hospital, we may be able to use tissue not needed for your treatment or diagnosis to carry out research, for quality control or to train medical staff for the future. Any such research, or storage or disposal of tissue, will be carried out in accordance with ethical, legal and professional standards. In order to carry out such research we need your consent. Any research will only be carried out if it has received ethical approval from a Research Ethics Committee. You do not have to agree and if you prefer not to, this will not in any way affect the care and treatment we provide. The leaflet ‘Donating tissue or cells for research’ gives more detailed information. Please ask for a copy.

If you wish to withdraw your consent on the use of tissue (including blood) for research, please contact our Patient Advice and Liaison Service (PALS), on 01223 216756.
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.

We are 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 or audio, please contact
Interpreting services on telephone: 01223 348043, or email:
interpreting@addenbrookes.nhs.uk For Large Print information please contact
the patient information team: patient.info@addenbrookes.nhs.uk

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Consent Form

Surgery for abdominal aortic aneurysm

A      Patient's side  left / right  or  N/A

Consultant or other health professional responsible for your care

Name and job title: .................................................................

☐ Any special needs of the patient (e.g. help with communication)? .........................................................

Please use ‘Procedure completed’ stamp here on completion: .................................................................

B      Statement of health professional (details of treatment, risks and benefits)

I confirm I am a health professional with an **appropriate knowledge of the proposed procedure**, as specified in the hospital's consent policy. I have explained the procedure to the patient. In particular, I have explained:

a) the intended benefits of the procedure (please state)

   To use surgery to repair your aneurysm to prevent it either bursting or blocking.

b) the possible risks involved. Addenbrooke's always ensures any risks are minimised. However all procedures carry some risk and I have set out below any significant, unavoidable or frequently occurring risks including those specific to the patient

- possible heart, kidney and / or lung failure can occur
- circulation to the legs can become blocked
- bleeding from the repaired aorta can occur
- erectile dysfunction in men
- graft infection
- wound infection
- limb ischaemia

c) what the treatment or procedure is likely to involve, the benefits and risks of any available alternative treatments (including no treatment) and any particular concerns of this patient:
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d) any extra procedures that might become necessary during the procedure such as:
- Blood transfusion
- Other procedure (please state)

2 The following information leaflet has been provided:

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or ☐ I have offered the patient information about the procedure but this has been declined.

3 This procedure will involve:
- General and/or regional anaesthesia
- Local anaesthesia
- Sedation
- None

Signed (Health professional): ......................................................... Date: D D / M M / Y Y Y Y
Name (PRINT): ................................................................. Time (24hr): H H ; M M
Designation: ................................................................. Contact/bleep no: .........................

C Consent of patient / person with parental responsibility

I confirm that the risks, benefits and alternatives of this procedure have been discussed with me and that my questions have been answered to my satisfaction and understanding.

Important: please read the patient information about this procedure and then put a tick in the relevant boxes for the following questions:

1 Creutzfeldt Jakob disease (CJD)
Have you ever been notified that you are at risk of CJD or variant CJD for public health purposes? If yes, please inform your health professional.

☐ Yes ☐ No

2 Photography, Audio or Visual Recording
a) I agree to the use of any of the above type of recordings for the purpose of diagnosis and treatment.

☐ Yes ☐ No

b) I agree to unidentified versions of any of the above recordings being used for audit and medical teaching in a healthcare setting.

☐ Yes ☐ No

3 Students in training
I agree to the involvement of medical and other students as part of their formal training.

☐ Yes ☐ No
Consent Form

Surgery for abdominal aortic aneurysm

4 Use of Tissue
   a) I agree that tissue (including blood) not needed for my own diagnosis or treatment can be used and stored for ethically approved research which may include ethically approved genetic research.

   b) Where additional clinical information is needed for the purposes of ethically approved research, I agree that relevant sections of my medical record may be looked at by researchers or by relevant regulatory authorities. I give permission for these individuals to have access to my records.

I have listed below any procedures that I do not wish to be carried out without further discussion.

I have read and understood the Patient Information about this procedure and the above additional information. I agree to the procedure or treatment.

Signed (Patient): ................................................................. Date: __/__/yyyy
Name of patient (PRINT): ............................................................

If signing for a child or young person; delete if not applicable.
I confirm I am a person with parental responsibility for the patient named on this form.
Signed: ................................................................. Date: __/__/yyyy
Relationship to patient:

If the patient is unable to sign but has indicated his/her consent, a witness should sign below.
Signed (Witness): ................................................................. Date: __/__/yyyy
Name of witness (PRINT): ............................................................
Address:

Patient safety – at the heart of all we do

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Surgery for abdominal aortic aneurysm

D  Confirmation of consent

Confirmation of consent (where the treatment/procedure has been discussed in advance)
On behalf of the team treating the patient, I have confirmed with the patient that she/he has
no further questions and wishes the treatment/procedure to go ahead.

Signed (Health professional): ........................................... Date: ..........................
Name (PRINT): ...........................................................................................................
Job title: ......................................................................................................................

Please initial to confirm all sections have been completed:

E  Interpreter’s statement (if appropriate)

I have interpreted the information to the best of my ability, and in a way in which I believe the patient
can understand:

Signed (Interpreter): .......................................................... Date: ..........................
Name (PRINT): ...........................................................................................................
Or, please note the language line reference ID number:

F  Withdrawal of patient consent

☐ The patient has withdrawn consent (ask patient to sign and date here)

Signed (Patient): .......................................................... Date: ..........................

Signed (Health professional): ........................................... Date: ..........................

Name (PRINT): .......................................................... Job title: ..........................

Patient safety – at the heart of all we do

Abdominal aortic aneurysm (AAA), CF200, V8, July 2018