Patient information and consent to insertion of a central venous catheter

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.

- 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.

- Laxatives and painkillers may be required after your hospital stay; please ensure you have appropriate supplies at home.

- 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 Access Unit on telephone number 01223 596020 if you have any questions or concerns about this procedure or your appointment.

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.

Insertion of a central venous catheter, CF320, Version 5, July 2017
About insertion of a central venous catheter

A central venous catheter, or central line, is a long hollow tube made of silicon rubber which is placed into one of the large veins in the body. One end of the line remains outside the body and can be used for injections. The other end is positioned inside a large vein, usually near to the heart. There are a number of veins into which the catheter can be placed; the most common being the axillary vein that lies just beneath the clavicle (collar bone) or the jugular vein that lies just above the clavicle at the base of the neck.

The particular vein that we use, and the side of the body, will depend on the reasons that you require a central line. It will also depend on how large the veins are when we examine them with an ultrasound machine during the insertion. The best position and site for you will be discussed before the procedure; however, it is sometimes impossible to decide until during the procedure.

In order to reduce the chances of the catheter getting infected it is usually tunnelled under the skin before going into the vein. This means that the catheter will usually appear from underneath the skin on the front of your upper chest. We try to make sure that the entry site is in a comfortable position for you.

Central venous catheters are usually recommended for patients who need injections or drugs over a long period of time or for patients who need feeding into their veins. The need and reasons for the catheter will have been discussed with you by the doctors looking after your condition.

Intended benefits

The benefits of having a central venous catheter will have been explained to you by your doctors and nurses. The main benefit is that the catheter is a secure and safe method for administering drugs and medicines that can not be given through smaller veins.

Who will perform my procedure?

This procedure will be performed by a member of the Vascular Access Team; either a specialist doctor or a nurse who has been specially trained to perform the procedure. The Vascular Access Team is medically supervised by two consultants in intensive care medicine.

Before your procedure

Before the central venous catheter is put in, the reasons for it will have been discussed with you by the doctors looking after you. You will meet a member of the Vascular Access Team before you have the procedure, but this is not usually until the day of the procedure. Please ask us any questions about the procedure, and feel free to discuss any concerns you might have at any time.
Upon arrival in our unit, you will be asked to have a shower with our antiseptic shower gel in order to minimise infection prior to the central line being put in. You will be given a towel and a theatre gown to get changed into afterwards.

You may wear a wedding ring if appropriate but no other jewellery should be worn.

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 local anaesthesia and sedation. In special cases, a general anaesthetic might be required and this will be fully discussed prior to the procedure. 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.

Most people who have this type of procedure can have it done as a day-case procedure and only need to stay in hospital for a few hours after the insertion. However, there may be other reasons why you have to stay in hospital for longer, and your doctor will discuss this with you before you decide to have the procedure.

**Before the procedure you may eat and drink, although we recommend you only have a light breakfast.**

You will also require some blood tests before the procedure which will be organised by your specialist nurse.

If you are taking either warfarin or clexane (blood thinning drugs), please discuss with your doctor when you should stop taking these prior to the procedure.

You will not be able to drive after the procedure (the sedation we use makes your insurance invalid for approximately 24 hours) so please make arrangements to have someone bring you in and take you home after the procedure.

**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 the procedure

- When you arrive in the Vascular Access Unit (VAU, level 4 Radiology) we will insert a small cannula (drip) into your arm if you do not already have one.
- You will be transferred onto the operating table and will be given some sedation medicine into the cannula in your arm.
- While you are sedated we will monitor your heart rate and oxygen levels with a peg (pulse oximeter) on your finger; you may also require some oxygen via a mask.
- We will then use an ultrasound to look at the veins in your neck and arms to decide which the best one to use.
- We will clean your skin and numb it with an injection of local anaesthetic; the procedure is carried out under full sterile conditions.
- Using the ultrasound machine to guide us, we will insert a needle into your vein and then thread in a wire.
- The position of the wire will be checked with an X-ray and we will then thread in the catheter; you may feel a little discomfort or pushing at this point.
- If you have the catheter inserted into your jugular vein or axillary vein (the veins just above and below the collar bone) you will have a small scar just above or below your collar bone.
- The catheter is then tunnelled under the skin and appears on the front of the chest where it will be sewn to the skin.
- You will usually have two dressings to cover the scars. The procedure normally takes about an hour.

After the procedure

- After the procedure you will be transferred to the recovery area where you will spend a couple of hours until you are ready to go home. If you are an inpatient you will be transferred back to the ward.
- While you are in the recovery area, a nurse will check your pulse and blood pressure regularly.

Eating and drinking. After this procedure, you should be able to eat and drink as soon as you have recovered from the sedation.

Getting about after the procedure. After this procedure you may get up as soon as you feel able. If you have any mobility problems, we can arrange nursing or physiotherapy help.

Leaving hospital. Most people who have had this type of procedure under local anaesthetic and sedation will be able to leave hospital after two to three hours. You will not be able to drive yourself home. The actual time that you stay in hospital will depend on your general health, how quickly you recover from the procedure and your doctor’s opinion.
Resuming normal activities including work. Most people who have had this procedure can resume normal activities by the next day but you may have a little discomfort in your neck or shoulder. You might need to wait a little longer before resuming more vigorous activity. When you will be ready to return to work will depend on your usual health, how fast you recover and what type of work you do. Please ask your doctor for their opinion.

Special measures after the procedure: You will be given more detailed information about any special measures you need to take after the procedure. You will also be given information about things to watch out for that might be early signs of problems (for example infection).

Significant, unavoidable or frequently occurring risks of this procedure

- **Infection.** The operation is carried out using full sterile conditions but there are still risks of the catheter getting infected – this may be local infection at the skin or a more general bloodstream infection. Sometimes the infection can be treated with antibiotics, but sometimes the line has to be removed. To reduce the incidence of infections, the catheter needs looking after very carefully and you will receive more information about this.

- **Local bruising or pain at the site of insertion.** This usually settles over a few days; you may require some simple pain killers such as paracetamol.

- **Thrombosis (blood clot).** When a catheter sits in a vein there is an increased chance of a blood clot forming in the vein. If you experience any of the following symptoms on the side the line has been inserted, please contact either your GP or hospital doctors as soon as possible: swollen fingers/arm/neck, aching shoulder or arm.

- **Lung collapse.** This happens in less than 1% of patients and may require further treatment to avoid breathing complications. You will usually have to stay in hospital until the lung has healed.

- **Stenosis.** If you need the catheter for a long period of time there is a risk that the vein becomes narrowed (stenosed). If this happens then we may need to put the catheter into a different vein.

- Risks associated with procedures under this type of anaesthesia/sedation: For risks associated with your type of anaesthetic/sedation please see below.

Alternative procedures that are available

The alternative to a central venous catheter is to place a cannula in a small vein in your arm. This is often not possible or safe and the reasons you need a central line will have been discussed with you by your doctors and nurses. You can decide not to have this procedure or to wait until you have had time to think about it, but your treatment may be delayed if you do not have a central venous line.
Information and support

- If you have any questions or anxieties, please feel free to ask a member of the Vascular Access Team.
- The Vascular Access Team can be contacted through 01223 596020.
- Further information on central lines can be found at this web site: www.macmillan.org.uk/Cancerinformation/Cancertreatment/Treatmenttypes/Chemotherapy/Linesports

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, they 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 will review your test results.

Pre-medications

You may be prescribed a ‘premed’ prior to your operation. This is 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 and before starting your anaesthesia, the medical team will perform a check of your name, personal details and confirm the operation you are expecting.
Once that is complete, 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. If a regional anaesthetic is going to be performed, this may be performed at this stage. If you are to have a general anaesthetic, 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.

**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.

**Regional anaesthesia**

Regional anaesthesia includes epidurals, spinals, caudals or local anaesthetic blocks of the nerves to the limbs or other areas of the body. Local anaesthetic is injected near to nerves, numbing the relevant area and possibly making the affected part of the body difficult or impossible to move for a period of time. Regional anaesthesia may be performed as the sole anaesthetic for your operation, with or without sedation, or with a general anaesthetic. Regional anaesthesia may also be used to provide pain relief after your surgery for hours or even days. Your anaesthetist will discuss the procedure, benefits and risks with you and, if you are to have a general anaesthetic as well, whether the regional anaesthesia will be performed before you are given the general anaesthetic.

**Local anaesthesia**

In local anaesthesia the local anaesthetic drug is injected into the skin and tissues at the site of the operation. The area of numbness will be restricted. Some sensation of pressure may be present, but there should be no pain. Local anaesthesia is used for minor operations such as stitching a cut, but may also be injected around the surgical site to help with pain relief. Usually a local anaesthetic will be given by the doctor doing the operation.

**Sedation**

Sedation is the use of small amounts of anaesthetic or similar drugs to produce a ‘sleepy-like’ state. Sedation may be used as well as a local or regional anaesthetic.
The anaesthesia prevents you from feeling pain and the sedation makes you drowsy. Sedation also makes you physically and mentally relaxed during an investigation or procedure which may be unpleasant or painful (such as an endoscopy) but where your co-operation is needed. You may remember a little about what happened but often you will remember nothing. Sedation may be used by other professionals as well as anaesthetists.

**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 although 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)

Insertion of a central venous catheter, CF320, Version 5, July 2017
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.

For more information about anaesthesia, please visit the Royal College of Anaesthetists’ website: www.rcoa.ac.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 biomedical 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 now 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, large print or audio, please ask the department where you are being treated, to contact the patient information team: patient.information@addenbrookes.nhs.uk.
Please note: We do not currently hold many leaflets in other languages; written translation requests are funded and agreed by the department who has authored the leaflet.

Document history
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The catheter is a secure and safe method for administering drugs and medicines that cannot be given through smaller veins.

Local bruising or pain at the site of insertion, infection, thrombosis, lung collapse and stenosis.

The catheter is a secure and safe method for administering drugs and medicines that cannot be given through smaller veins.
Consent Form

Insertion of a central venous catheter

d) any extra procedures that might become necessary during the procedure such as:

☐ Blood transfusion ☐ Other procedure (please state)

The following information leaflet has been provided:
Insertion of a central venous catheter

Version, reference and date: CF320 v5 July 2017

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

This procedure will involve:

☐ General and/or regional anaesthesia ☐ Local anaesthesia ☐ Sedation ☐ None

Signed (Health professional): Date:

Name (PRINT): Time (24hr):

Designation: Contact/bleep no:

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

Insertion of a central venous catheter

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. □ Yes □ No
   
   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. □ Yes □ No

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: _._._./M.M./Y.Y.Y.Y.
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: _._._./M.M./Y.Y.Y.Y.
Relationship to patient:

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

For staff use only:
Hospital number:
Surname:
First names:
Date of birth:
NHS no: _ _ _ / _ _ _ / _ _ _ _
Use hospital identification label
Consent Form

Insertion of a central venous catheter

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: ___.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.____.___...