

Information for patients and carers

Tunnelled Central Venous Catheter (CVC)

A decorative graphic at the bottom of the page consisting of three overlapping, wavy horizontal bands in shades of blue, ranging from a light sky blue to a dark navy blue.

What is a tunnelled Central Venous Catheter (CVC)?

A tunnelled CVC is a long, thin, hollow tube that is inserted underneath the skin of your chest wall, and the tip or end of the CVC is located in a large vein in your chest (vena cava), just above your heart.

You may also hear them called Hickman® or Groshong® lines.

Why do I need a tunnelled CVC?

A tunnelled CVC is used to administer medications, chemotherapy, nutrition, antibiotics or fluids which need to be given intravenously (directly into a vein).

The tunnelled CVC can also be used to take blood samples, reducing the need for needles in the arm. If cared for appropriately, the tunnelled CVC can remain in place for twelve to eighteen months.

Before the procedure

You may require some blood tests before the procedure to ensure it is safe to proceed. Certain medications may need to be stopped prior to the procedure, and this will be discussed with you at a triage assessment before your appointment date. The procedure will be discussed with you at length, and if you are happy to go ahead, you will be asked to sign a consent form.

What happens during the procedure?

The doctor/nurse practitioner will scan your neck using an ultrasound machine so that they can see the veins inside. This will help to determine where to insert the tunnelled CVC.

The procedure uses x-rays, which are a form of radiation, to help confirm the correct position.

There are some small risks involved with x-rays but only the minimum amount of radiation is used to produce the images required. We use the smallest dose possible, in line with national regulations.

For the procedure you will be required to lie flat on the x-ray table. Your neck and chest will be cleaned with antiseptic solution and covered with a sterile drape.

The doctor/nurse practitioner will then inject local anaesthetic to numb the insertion site and the area on the top of your chest. Although you should not feel any pain during the procedure, you may at times feel some pressure.

Once the areas are numb, two small incisions will be made; one on your chest wall where the CVC will come out and the second in your neck where the CVC goes into the vein. The incision in the neck will be closed with sutures, which will need removing in 5-7 days after the procedure.

The procedure takes approximately 30-45 minutes.

A transparent, breathable dressing will be applied over the exit site to secure the CVC, along with a small dressing to your neck.

What are the risks of the procedure?

This procedure has a small risk of complications.

The doctor/nurse practitioner will go through these with you in detail:

Infection – There is a small risk of infection following the insertion of a tunnelled CVC.

Bleeding and bruising – There can occasionally be some bleeding and bruising around the insertion site.

Damage to other structures – There is a small risk of damage to other structures (nerves, artery) in the neck.

Pneumothorax/Haemothorax – A very rare complication from CVC insertion is pneumothorax/haemothorax (collapsed lung), due to the lung field being close to the insertion site.

Failure to insert – There is a small chance that it may not be possible to place the CVC. This will require further discussions with yourself and the referring team as to what the best options are in order for you to have your treatment.

What happens after the procedure?

After the procedure you will be required to stay in the department for a period of time to ensure there are no problems. It is not uncommon to feel some slight discomfort, or an ache in your neck, where the tunnelled CVC was inserted.

If required, take your usual painkillers (following the medication guidelines).

We recommend you have someone to bring you to and from the hospital on the day of your procedure or you will need to arrange hospital transport, telephone 0800 032 3240.

Avoid any strenuous exercise for at least 24-48 hours after the procedure.

Who looks after my tunnelled CVC?

The care of the tunnelled CVC is often performed by community nurses and/or the referring team (nutritional team, oncology team, Outpatient Parenteral Antimicrobial Therapy (OPAT) team etc.). They will clean, re-dress and flush the tunnelled CVC on a weekly basis.

When you are home it is important that the transparent dressing is kept clean and dry at all times; this will help to prevent infections. Arrangements will be made for your sutures to be removed.

It is possible for you to have a shower, once the sutures have been removed. The dressings must remain in place and you need to pat dry the area with a clean, dry towel. Baths are not recommended.

How and when is the tunnelled CVC removed?

CVC device will be removed once your treatment is completed and this will be organised by your referring team. Removing the tunnelled CVC is usually a quick procedure compared to the insertion; it is performed under a local anaesthetic only. Any preparation required will be discussed with you at the time.

Contact details

Should you require further advice or information please contact your specialist nurse or referring team or you can contact us in the Interventional Radiology Day Unit (IRDU) between 8.30am and 4.30pm, Monday to Friday, on **01772 522343**.

Sources of further information

www.lancsteachinghospitals.nhs.uk

www.nhs.uk

www.patient.co.uk

www.accessable.co.uk

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www.lancsteachinghospitals.nhs.uk/patient-information-leaflets

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If you want to stop smoking, you can also contact Smokefree Lancashire on Freephone **08081962638**.

Please ask a member of staff if you would like help in understanding this information.

This information can be made available in large print, audio, Braille and in other languages.

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