TUNNELLED VENOUS ACCESS

HICKMAN, LEONARD, BROVIAC & GROSHONG LINES

PORT INSERTION

WHAT IS TUNNELLED VENOUS ACCESS?

Many patients require access to a vein to administer chemotherapy, antibiotics, blood products and nutritional supplements. Commonly this is performed by peripheral cannulas in your hand or arm. However if regular treatments are required it can become increasingly difficult to find a suitable vein. Tunnelled venous line's / port's offer a solution to this problem with no need for further cannula's to be placed.

These types of lines are common. When you have a tunnelled line, you are spared the irritation and discomfort of repeated needle and cannula injections. Intravenous contrast (used for computed tomography [CT] imaging) can also be administered via these lines.

WHAT TYPES ARE AVAILABLE?

There are a number of different types of access available:

1. TUNNELLED LINES:

- **a. Hickman, Leonard & Broviac**
- **b. Groshong**

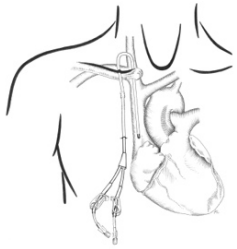
2. PORTS

The decision of which is required depends on your individual needs.

WHAT ARE TUNNELLED LINES?

A tunnelled line is a tube that is inserted into a central vein and tunnelled beneath your skin to exit on the chest. There are essentially two different types of line – both come with either a single lumen or double lumen.

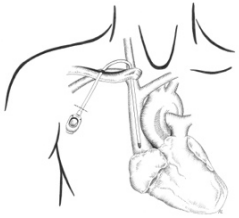
The Hickman, Leonard & Broviac lines have an open end within your central vein and have either one or two clips on the outside portion of the line. They tend to have a reasonable length of line outside your skin, which you will need to keep secure.



The Groshong line has a special valve on the end of the line, which lies within your central vein. This means that there is less line outside your skin and there is no need for any clips.

WHAT IS A PORT?

A Port is a device placed completely under your skin so that the doctors and nurses can administer drugs or draw off blood. There are no components that are free and lie over your skin. The port is a small hard disc, about the size of a 50p, and is made to receive a special needle.



The centre of the Port is called the septum, which is used by the nurse or doctor to place the needle for use. The septum is made of a special self sealing rubber that can be punctured over a 1000 times with the special needle. When you have a Port you are spared the irritation and discomfort of repeated cannula insertions.

We currently use two port's at BMI Priory Hospital; the Slimport & Powerport.

"Slim port"

"Power port"

WHAT ARE THE DIFFERENCES BETWEEN PORTS?

Although there are numerous different types of ports available, most of them still remain bulky and heavy devices. Dr Ian McCafferty prefers to use Ports from the Bard ranges that are MRI compatible. The commonest port used at BMI

Priory is the Powerport, which is low profile and allows pressure Injections used in CT.

WHO IS INVOLVED?

Your Oncologist or Haematologist will generally refer you for the line insertion.

Dr Ian McCafferty, Consultant Interventional Radiologist will meet you before your procedure to discuss the line / port options available, obtain consent, assess your veins with ultrasound and answer any questions you may have.

As an Interventional Radiologist, your line / port is placed with an image guided minimal invasive technique. This allows safer more accurate placement with minimal risk.

WHAT IS INVOLVED BEFORE THE PROCEDURE?

The procedure is performed as a day case. You will be asked to remain nil by mouth for 4 hours prior to the procedure. You will be admitted to the suite by the nursing staff and have a few routine blood tests. You will be asked to talk a special shower to reduce the chances of infection.

THE PROCEDURE ITSELF

A team of people is involved in the insertion of your line in the interventional radiology suite. An interventional nurse will look after you during the procedure. Senior radiographer Jane Brewin will be present to control the X-ray equipment.

The procedure is performed with image guidance. Dr Ian McCafferty uses both ultrasound and X-rays to allow accurate and safe placement.

To help you relax, the procedure is performed with sedation. There is no need for a general anaesthetic and the related risks. Local anaesthetic is injected at the line insertion site, this may sting for a few seconds but then it will go numb. Dr Ian McCafferty then places the line into the central vein, and after a further injection of local anaesthetic on the chest the line is placed or a small Port pocket is fashioned through a small 5-6cm incision. The line / port is then placed under the skin and sutured. The majority of patients do not remember the procedure, and feel very little discomfort.

You will leave the interventional radiology suite with your line / port fully functioning and ready for use. There is no need for a chest X-Ray.

AFTER PORT INSERTION

Following the procedure you will be taken back to your room on the ward. You will be a little sore for a couple of days along the line / port and you may have a small bruise.

You will feel drowsy for about an hour, during which you may need oxygen. After an hour or when you feel fit you can eat and drink. Once the nursing staff are happy you will be able to go home.

If you have a port then special cream can be applied to numb the overlying skin before the needle is placed.

WHAT ARE THE POSSIBLE COMPLICATIONS?

Complications are very uncommon because Dr McCafferty uses imaging for placement.

Arterial puncture: An artery accompanies every vein, which is possible to puncture inadvertently.

Pneumothorax: The lung is also very close and it is possible to puncture.

These are extremely uncommon and I quote a risk of 1%, but likely to be significantly less.

Infection: There is a small risk due to insertion (within 14 days), but the greater risk is later infections. Overall, Infection risks are lower for ports than lines. However ports are not suitable for all types of treatment.

Migration: There is a small risk the line may move if caught.

WHAT CAN I DO AFTER PLACEMENT?

There are no physical limitations. It is wise to take great care over the first 2 weeks. Dr McCafferty recommends you keep the wound completely dry for 5 days.

WHAT IF I HAVE ANY PROBLEMS?

This is unlikely but if something arises and you would like advice on please contact one of the Sisters in the oncology department.

CONTACT INFORMATION:

THE RADIOLOGY CLINIC
TEL: 0121 455 9496

EMAIL
info@ianmccafferty.com

the Radiology Clinic