

Mechanical Phlebitis

This problem is caused by an irritation of the vein; it is not an infection. Mechanical phlebitis usually occurs within the first 24-48 hours after your catheter is placed, but may occur up to a week later. Signs of mechanical phlebitis are redness, warmth, tenderness, swelling or hardness at the site. These feelings may go along the wall of the vein. If you experience any of these signs and symptoms you should contact your nurse or doctor as soon as possible.

This problem may be treated with:

- ~ Application of a warm compress four times a day for 20 minutes, for 2 – 3 days.
- ~ Raising the affected arm
- ~ Performing gentle arm exercises
- ~ Taking anti-inflammatory medication if prescribed

Clotting / Blocked PICC

A blood clot may block the flow of fluid through your catheter. The most common cause of this is if the catheter is not flushed immediately after blood drawing, or administration of medications.

Catheter Migration

This occurs when the catheter has moved from where it was first placed. Signs of a migrated catheter include increased length of the external catheter, swelling in the neck or chest during an infusion, pain or discomfort during the infusion, no blood return, or leaking at the catheter site. If you think your catheter has moved more than 2.5cms, or if you feel any of these signs and symptoms, inform your nurse or doctor as soon as possible.

Catheter Breakage

It is rare for your catheter to break or tear but this can happen. Catheter breakage can be caused by using long needles or other sharp objects on the catheter, too much twisting when changing the bung, too much kinking and using too much force when flushing. Catheter breakage can be prevented by:

- ~ Never use a syringe smaller than 10ml when flushing the catheter

- ~ Avoid putting sharp objects; such as scissors and knives, near the catheter
- ~ Avoid twisting the catheter. Instead, grasp it by the hub when flushing or changing the bung

If your catheter does break, you may see that the dressing is wet, or that your catheter leaks when it is flushed. If you suspect that your PICC is broken, fold the catheter back upon itself, secure with tape and contact your nurse or doctor as soon as possible.

Thrombosis

Thrombosis may occur if a blood clot forms and blocks blood flow through the vein where your PICC is placed. Signs of thrombosis are pain and / or swelling in your neck, face, chest or arm. You may also feel "fullness" in your face. If you notice any of these things contact your nurse or doctor as soon as possible.

Air embolism

This may occur if air enters your vein through your catheter. You may feel suddenly short of breath or develop a cough. If this happens call your doctor immediately or attend the nearest hospital.

How do I get more information?

If you have any concerns or questions while in hospital or after discharge you should speak directly to your nurse or doctor.

This leaflet was produced by St Andrew's Hospital PICC working group.

References:

- ~ St Andrew's Hospital PICC Line Policy
- ~ Patient Information Publications, Managing Your PICC / SICC Catheter, National Institutes of Health, Warren Grant Magnuson Clinical Centre, Bethesda, MD 20892
- ~ Bard Australia Pty. Ltd.

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The information contained within this publication is a guide only. Readers should seek and follow medical advice provided by their own doctor.

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Patient Information Brochure

Peripherally Inserted Central Catheter (PICC)



What is a PICC Line and Why Do I Need One?

PICC stands for Peripherally Inserted Central Catheter. The PICC is a soft, flexible, intravenous (I.V.) line, about 20-24 inches (50-60 cm) long. The PICC is inserted into one of the large veins in the arm near to the elbow, and then passed along the vein until the tip of the PICC sits in a very large vein just above the heart. Depending upon your treatment the PICC may have a single or double lumen (opening).

PICC lines can be used for drawing blood and for giving intravenous fluids, medications, nutrition or blood. We use PICC lines because they can be left in-situ from periods of a week up to several months and negate the need for frequent re-siting of short term IV cannula (drips) in the hand or forearm.

How Is The PICC Inserted?

At St Andrew's hospital all PICC lines are inserted by specially trained medical staff, in a sterile environment, under direct x-ray guidance. A large vein is located; normally in the upper arm, and local anaesthetic is used to numb the area of insertion to minimise discomfort.

The PICC is then inserted into the vein and advanced until the tip of the catheter sits just outside the heart in one of the large veins. Once satisfied that the PICC is in the best position the catheter will be secured to your skin with a special fixation device and covered by a dressing. You may feel some initial discomfort at the site of insertion but this usually goes away in 24-48 hours.

How Do I Care For My PICC?

PICC lines do require some modifications to your normal lifestyle to keep them in good working order. However with attention to the following you should be able to continue with your normal activities including work, school, light exercise, and sexual activity.

Infection.

Infection may occur if the insertion site is not kept clean and dry. Strict adherence to good hand hygiene by thoroughly washing and drying hands before any contact with the PICC, injection bung or the dressing is essential. You should also avoid touching the PICC dressing and insertion site unless absolutely necessary. You should monitor the

PICC insertion site daily and report any redness, swelling and pain at the PICC insertion site and / or any signs of fever / chills to either your nurse or doctor.

Managing personal hygiene needs

The arm with the PICC should not be immersed in water therefore swimming and bathing should be avoided. However showering with a PICC is OK provided you place your arm in a plastic bag which is secured above the PICC insertion site and removed after your shower.

Activity

Movement (migration) of the PICC from its location can be caused by: strenuous coughing, frequent retching or vomiting, heavy lifting, repeatedly raising your arm above your shoulder and by strenuous exercise. While in hospital you should avoid the use of self help poles. Once at home avoid activities or forms of exercise that may cause the PICC to move such as hanging out washing, golf etc.

Helpful advice for other Health Professionals

At times you may be away from your regular doctor or nurse and require assistance with managing your PICC. As some medical and nursing staff may be unfamiliar with the use of PICC lines the following directions will help them to help you.

Flushing

The catheter lumens need to be flushed periodically to ensure they stay clean and free flowing. The frequency of flushing and the solution used (Saline or heparinised saline) is dependant on the type of treatment you are receiving and if the PICC is used for blood sampling. However as a general rule the PICC should be flushed after all drug or fluid administrations and withdrawal of blood. When flushing the PICC lumens avoid using too much force as this can damage the catheter. A push / pause (pulsatile) flush technique is used as this has been shown to be the most effective way of keeping the lumens clear. Maintain a positive pressure in the PICC by removing the syringe while the last 0.5ml of flush solution is injected.

Dressing Change and Site Care

Your dressing change should always be performed using a sterile technique. This means that special steps will be followed to reduce your risk of infection. Since the catheter can be accidentally pulled out during a dressing change, only trained health professionals should change the dressing. Dressing change should be done 24 hours after insertion, and then every 7 days or when the dressing is soiled or loose.

Changing the Injection Bung

The injection bung is routinely changed weekly: to prevent infection and overuse and following blood withdrawal. This is normally done at the same time as the dressing is changed using a sterile technique.

Drawing Blood from a PICC

The following steps should be followed

- ~ To avoid catheter rupture never use a syringe smaller than 10ml
- ~ Remove Heparin lock if in situ
- ~ Pre-flush the PICC with 20ml normal saline to check patency
- ~ To avoid catheter collapse never use a vacutainer directly on a PICC
- ~ Apply gentle suction via the syringe and wait for approximately 30 seconds to allow the blood to flow
- ~ On completion replace the injection bung and flush the catheter with 20ml of normal saline

What to do when Problems Occur

While most patients continue their daily activities without problems, the following may occur:

Bleeding from the exit site

A small amount of bleeding from the exit site is normal for the first 24 hours after your catheter is placed. However if bleeding persists, or if blood leaks through the dressing, apply firm pressure to the site and call your nurse or doctor for assistance.