

Peripherally Inserted Central Catheter (PICC)

Procedure

A Peripherally Inserted Central Catheter (PICC) is a long, narrow tube (catheter). It is used to give medication directly into the blood stream without having to repeatedly insert a needle into the vein. Blood samples for testing may also be taken through the PICC. A PICC can be left in place for weeks or months, depending on the treatment. Using ultrasound as a guide, the needle will be inserted into the vein in the arm. Once the catheter has entered into the vein, it is passed along the vein using x-ray guidance. When the catheter is in the correct place, a chest x-ray will be taken to confirm its placement. A general anaesthetic is often needed for young children or those unable to lie still. In general, the younger the child, the longer the procedure will take. In older children, it can be done under sedation or while the child is awake. It is very important that you/your child lie very still for the procedure.

Risks

When a PICC is recommended it is because the doctor believes the benefits of having the procedure outweigh the risks involved. Risks are highest in the very young.

Common risks and complications include but are not limited to:

- Risks of a general anaesthetic
- Minor pain, bruising and/or infection at the site. This may require treatment with antibiotics
- Bleeding or bruising may occur. This is usually stopped by applying further pressure and/or ice to puncture site. This is more common if Aspirin, Warfarin, or any other drug that is used to thin the blood is taken (hence important to let your doctor know if your child is taking these medications)
- The PICC may become kinked or blocked. The PICC may need to be re-positioned and/or medication given to unblock the catheter
- Blood clot blocking the vein. This may require medication to treat and making the insertion of another PICC line more difficult in the future
- The PICC may be accidentally removed or broken if pulled or tugged on. The PICC may need to be re-inserted
- Failure of local anaesthetic which may require a further injection of anaesthetic or a different method of anaesthesia may be used.

Less common risks and complications include but are not limited to:

- Infection at the skin puncture site, requiring antibiotics and/or further treatment
- Infection in the catheter, requiring the removal of the PICC
- An irregular or fast heartbeat. This usually resolves on its own but occasionally may need further treatment
- Damage to surrounding structures such as blood vessels, organs and muscles, requiring further treatment

- Irritation and pain in the vein from the PICC, the medications injected or from infection. The PICC may need to be removed
- An allergy to injected drugs, requiring further treatment
- Difficulty or inability to advance/insert the PICC may be due to small vessels, vasospasm, stenosis or difficult anatomy
- The tip of the PICC may move from the original placement, this will require repositioning or removal
- The procedure may not be possible due to medical and/or technical reasons.

Rare risks and complications include but are not limited to:

- Injected medications may leak outside of the vein, under the skin or into the fat tissues, this may require treatment
- An air bubble enters the blood stream. This can travel to the heart causing a heart attack or to the brain causing a stroke
- Increased exposure to x-rays
- Seizures and/or cardiac arrest due to local anaesthetic toxicity.

Death or permanent disability as a result of this procedure is very rare.

What happens if the Doctor is unable to insert the PICC?

Sometimes a PICC cannot be inserted. In this case a central line will be placed, usually in the neck or the groin. The patient will need to be managed in the hospital for the duration of the treatment. Central lines also have associated risks, which include many of the complications listed above but particularly: infection; breakage; disconnection with bleeding and damage to nearby structures including lung, artery, nerve and lymph tissue. Please make sure you have read and understood the above. Please ask the doctor who is inserting the PICC any further questions that you may have.

Care of the PICC at home

Take care not to pull the PICC.

Notify your Doctor immediately if the PICC breaks or falls out.

Go to the nearest ED or GP if your child becomes unwell or has:

- Pain, unrelieved by simple pain killers
- Continuous bleeding or swelling around the PICC
- Redness or inflammation of skin around the PICC
- Fever
- Swelling in the arm the PICC is inserted in.

This document can be made available in alternative formats on request for a person with a disability.

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