

## Introduction

As a parent or guardian, you want to be fully informed on the medical procedures recommended by your doctor for your child. This handout explains what a Peripherally Inserted Central Catheter (PICC) Line is, why your child may need one, how to prepare your child for this procedure, and what to expect during and after this procedure. If your child needs to continue intravenous (IV) therapy at home, information is also provided on what you need to learn to care for a PICC line at home.

## What is a PICC Line?

A PICC line is a Peripherally Inserted Central Catheter. A PICC line is a long, soft plastic tube placed into a large vein near the bend in your child's elbow. After the PICC line is inserted into the vein, the nurse or doctor guides the tube up into a large vein near your child's heart. Nurses use this line to give medications (for example, antibiotics and chemotherapy) and/or concentrated intravenous nutrition fluid (also known as TPN) to your child.

## Why Does My Child Need a PICC Line?

- **To lessen the discomfort from frequent intravenous (IV) catheter changes:** With some medical conditions, such as a severe infection, patients may need to receive long term (greater than 1 week) intravenous (IV) antibiotics. A PICC line may be recommended for your child because (1) it can stay in for a long period of time and, (2) your child can avoid frequent intravenous (IV) catheter changes.
- **To receive strong medications and/or concentrated intravenous nutritional fluid (TPN) without any damage to his/her blood vessels:** In some medical conditions, it is necessary for patients to take strong medications/intravenous fluids that may be irritating to their veins. A PICC line may be recommended for your child because a PICC line sits in a big vein where there is a large volume of blood flow. Through this PICC line, your child can receive strong medications and/or concentrated intravenous nutritional fluid (TPN) and minimize damage to his/her blood vessels.

## Why Does My Child Need a PICC Line? *(continued)*

- **To continue therapy at home with safe care of the PICC line:** Some patients may need to continue intravenous (IV) medications at home when their condition is stable enough to leave the hospital setting. A PICC line may be recommended for your child because it will allow your child to continue his/her course of intravenous (IV) therapy at home. With proper training, you can safely care for a PICC line at home.
- **To avoid needle sticks for blood tests with a PICC line:** Some patients may need frequent blood sampling for lab tests. Depending on the type of PICC line, blood samples can be collected from the PICC line and needle sticks avoided.

## Giving Signed Consent

- **Giving signed consent for your child to have the PICC line insertion procedure:** The risks, benefits, and alternatives of the PICC line insertion procedure will be discussed with you and your child prior to the procedure. You will be asked to sign a consent form stating that as the parent and/or legal guardian, you understand and give permission for the PICC line insertion procedure for your child. Prior to signing of the consent, it is a good time to ask any additional questions you may have about this procedure
- **Giving signed consent to administer sedation to your child:** Medications that make a child calm and sleepy are often given to infants and young children at the beginning of and during the procedure so that the child remains still and comfortable throughout the entire procedure. This process is called sedation. School age and adolescent age children are given the option to receive these calming medications. The risks, benefits, and alternatives of the sedation will be discussed with you and your child prior to the procedure. You will be asked to sign a consent form stating that as the parent and/or legal guardian, you understand and give permission for the sedation of your child. Prior to signing the consent, it is a good time to ask any additional questions you may have about sedation.

## Preparing - What Can My Child Eat Prior to the Procedure?

If your child is not going to receive any sedation:

- No restrictions.

If sedation is going to be used:

- No solids or formula may be taken by mouth for 6 hours prior to the procedure.
- No breast milk for 3 hours prior to the procedure.
- Clear liquids such as water and clear broth may be taken up to 3 hours prior to the procedure.

## Where Does the PICC Line Procedure Take Place?

- For adolescent age children who do not receive sedation, the procedure can be done in their room.
- For adolescent age children who receive sedation, and for children and infants, the procedure is performed in the Pediatric treatment room, or in the Pediatric Intensive Care Unit.
- You will be informed about the location of the PICC line procedure.

## How Long Does the PICC Line Procedure Take?

The procedure takes from 1 to 2 hours to complete.

## Does the PICC Line Procedure Cause Pain or Discomfort?

A PICC line insertion does cause discomfort and pain similar to a regular IV insertion. Different methods are used to minimize or eliminate your child's pain and discomfort:

- The nurse or doctor examines your child's forearms to locate and mark one or two "good veins." This eliminates blind needle sticks.
- A topical numbing cream is applied about 30 to 60 minutes before the procedure on areas around the marked vein(s). This cream helps to numb the area where the needle stick occurs. Other local numbing medications may also be used.
- If time permits, a Child Life Specialist will prepare you and your child for the procedure. You and your child will be taught developmentally appropriate coping methods to lessen your child's anxiety and pain during the procedure.

## What Happens After the PICC Line is in?

After the PICC line is placed, the catheter is secured to the skin, sometimes with stitches, to prevent displacement. The area is covered with a sterile dressing to prevent infection. A chest x-ray will be taken to ensure that the PICC line is in the correct location. If your child received sedation, the child will continue to be monitored at the location where the procedure is performed until the child is fully awake. Monitoring after the procedure may take anywhere from 30 minutes to over 1 hour. After your child is fully awake, and if your doctor approves, your child may drink and eat again.

## Observing the Care of a PICC Line: Knowing When Medical Attention is Needed

The goal of caring for the PICC line is to have it function properly and without complications throughout the course of your child's treatment. Nursing care is directed at the avoidance of any major complications such as an infection, line blockage, and line breakage.

### What a Normal PICC Line Looks Like

- Dressing is clean, dry, and secured.
- IV tubing closest to the PICC site is secured and is not pulling on the dressing. IV tubing is not dragging on the floor.
- No pain or swelling on arm, shoulder, chest, or neck.
- An appropriate size **PICC Repair Kit** is available.

### Warning Signs

**Alert the nurse immediately if you or your child notice any of the following warning signs:**

- Dressing is loose, wet, bloody, and foul smelling.
- Catheter is torn or broken.
- Arm where PICC is placed is tender or red.
- Any pain or swelling on arm, shoulder, chest or neck.
- IV tubing becomes disconnected or kinked.
- Blood backs up into IV tubing.
- IV pump beeping for blockage.
- Child has a fever.

## Observing the Care of a PICC Line: Knowing When Medical Attention is Needed *(continued)*

### Precautions

- Do not pick or pull on the dressing, the catheter, or the IV tubing.
- Do not touch the PICC site area.
- Do not swing the PICC-sided arm vigorously or allow your child to swing the PICC-sided arm vigorously.

### Teach or Help Your Child

- To report warning signs listed above.
- To follow precautions listed above.

## If Your Child Needs to Continue IV Therapy at Home Using the PICC Line

- Continue to use the same precautions and observe for warning signals as listed on page 4 of this handout.
- You will be taught specific techniques to use and care for the PICC Line at home by a nurse before your child goes home. A RN Case Manager at the hospital will contact you once the decision for home care is made. The RN Case Manager is responsible for arranging home care for your child.
- **A helpful hint in learning to care for the PICC Line at home:**  
Many parents have found that they learn faster and feel more comfortable performing PICC care when they observe hospital nurses performing PICC related tasks from day one when the PICC is inserted. Tasks that you need to know to care for a PICC line at home are:
  - to wash your hands thoroughly before and after you do PICC care
  - to flush the catheter
  - to attach and disconnect medication tubing to and from the catheter
  - to change the PICC dressing

## Where Can I Find More Information About This Procedure?

The nurse or doctor who performed the procedure can give you a PICC booklet on the procedure and on how to care for the PICC.

### Frequently Asked Questions

**Question: What is a PICC line?**

**Answer:** A PICC line is a Peripherally Inserted Central Catheter. Nurses use a PICC Line to give medications to your child, (for example, antibiotics and chemotherapy) and/or concentrated intravenous nutrition fluid.

**Question: Why does my child need a PICC line?**

**Answer:** A PICC line may be recommended for your child because (1) it can stay in for a long period of time and, (2) your child can avoid frequent intravenous (IV) catheter changes.

**Question: How long does it take to insert a PICC line?**

**Answer:** The PICC line procedure takes from 1-2 hours to complete.

**Question: What do I need to learn to care for a PICC line at home?**

**Answer:** You need to know and identify the warning signs of a PICC line that needs medical attention. Also, you need to learn proper techniques of hand washing, how to flush the PICC line, how to attach and disconnect medication tubing to and from the catheter, and how to change the PICC dressing.

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Note: This information is not meant to replace any information or personal medical advice which you get directly from your doctor(s). If you have any questions about this information, such as the risks or benefits of the treatment listed, please ask your doctor(s).