

## LRI Children's Hospital Guideline

### Accessing (Needle Insertion) a Totally Implanted Venous Access Device (Portacath) in Children and Young People

Staff relevant to:	Registered Nurses who have existing competency in the care and use of Central Lines for children and young people at UHL
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## **1. Introduction**

To provide a step-by-step procedure for accessing (Needle Insertion) a Totally Implanted Venous Access Device (Portacath) using ANTT with the aim to provide safe and effective care and prevent micro-organism contamination of the implanted device and line.

### **1.1 Other related policies and procedures**

This procedure should be used in conjunction with:

- [Consent to Examination or Treatment UHL Policy](#) UHL Trust ref: A16/2002
- [IV \(Intravenous Therapy\) UHL Policy](#) UHL Trust ref: B25/2010
- [Aseptic Non Touch Technique UHL Guideline](#) UHL Trust ref: B20/2013
- [Hand Hygiene UHL Policy](#) UHL Trust ref: B32/2003
- [Vascular Access UHL Policy](#) UHL Trust ref: B13/2012
- [Patient Group Directions UHL Policy](#) UHL Trust ref: B43/2005
- [MRSA Prevention Management and Screening UHL Policy.pdf](#) UHL Trust ref: B12/2015
- [Sharps Management UHL Policy](#) UHL Trust ref: B8/2013
- [Waste Management UHL Policy](#) UHL Trust ref: A15/2002

## **2. Standard operating procedure for accessing a portacath in children and young people**

### **Workforce – staffing requirements:**

One Registered Nurse whom is competent in giving IV medication via central lines adhering to the education and training guidance provided below.

Plus at least one additional person to support the procedure.

This could be another nurse, student nurse, nursing associate, health care assistant, play specialist, or parent (if deemed appropriate).

### **Points to consider:**

Some children/young people have a double implanted device in which the dual septum allows efficient multiple-infusion procedures and treatment, but as both septum work independently of each other both Portacath septum need to be accessed and flushed separately. With double implanted devices the mixing of medication running concurrently does not occur until they exit the catheter.

You must only use syringes of 10mls or greater as smaller size syringes may cause the line to rupture due to excess pressure. If the medication you need to give can only be measured in a smaller syringe, the line must be flushed first with a 10ml syringe to ensure patency.

All children and young people with a central line should be commenced on daily Stellisept/Octenisan wash and nasal Mucopiricin as per guidance and prescription whilst they are in-patients (adhering to the MRSA Prevention, Management and Screening Policy).

Allergies must be identified and documented prior to commencing this treatment.

### Locking Central Lines using Heparinised Sodium Chloride

When using Needled Portacath after each use you must lock with up to 4mls of Heparinised Sodium Chloride 100units/ml which must be prescribed.

To determine the volume of heparinised saline to be prescribed consideration of the internal capacity of the Portacath must be considered. Be mindful when caring for very young children under 2 years due to potential heparin dosing due to reduced internal capacity of their central line.

Before removing the needle you must flush with 10mls Sodium Chloride 0.9% before locking with up to 4 mls of Heparinised Sodium Chloride 100units/ml.

### **Equipment:**

- Safety (Huber) Portacath Needle
- Sterile Gloves, Dressing Towel and Gauze (Consider a sterile dressing pack)
- Clean gloves and apron from a dedicated box in the medicines preparation area
- Blunt fill needles
- 10ml Luer-Lock Syringes
- Needlefree (Bionector) Hub
- Chlorhexidine 2% and Alcohol 70% applicator (Chloraprep) 0.6 - 3ml size of swab depending on size and age of child
- Prescribed Sodium Chloride 0.9% ( Consider prefilled syringe)
- Prescribed Heparinised Sodium Chloride 100units/ml
- Blue tray
- Clinell Wipes
- Sterile transparent semi-permeable dressing (IV 3000 hand 9cm x 12cm Portacathed or non- Portacathed)
- Prescribed / PGD Local Anaesthetic (Ametop™) Cream and Dressing
- Prescription Chart
- Accessing Portacath Sticker (see [appendix 1](#))

## 2.1 Procedure / Process for Accessing (Needle Insertion) a Totally Implanted Venous Access Device (Portacath) in Children/Young People

No	Action
1	<p>Depending on the age and preferences of the child or young person, consider applying local anaesthetic cream (Ametop™) to the Portacath Site</p> <p>Ethyl Chloride spray can be used at the time of inserting the needle, however this is extremely cold and can cause undue distress in younger children</p> <p>(Local Anaesthetic cream/spray given via Patient Group Direction (PGD))</p>
2	Gather all required equipment checking packages are intact and equipment is in date.
3	Inform child/carer of procedure and gain informal consent.
4	<p>Clean your hands.</p> <p>(Wash hands / use alcohol hand gel following Infection Control Policy.)</p>
5	<p>Clean tray using Clinell wipes.</p> <p>Clean your hands.</p>
6	<p>Position the child/young person comfortably, using pillows or their parents/carers for support.</p> <p>Consider the use of a play specialist.</p>
7	<p>Clean your hands.</p> <p>Remove the local anaesthetic cream from Portacath Site(s) and using visual inspection and palpation over the Portacath, locate the septum(s) and edges noting the angle and position.</p>
8	<p>In an appropriate area (Treatment room / Medication preparation area).</p> <p>Clean your hands.</p> <p>Using ANTT open a dressing towel into the blue tray then open the equipment into the dressing towel- following ANTT procedure.</p>

9	<p>Assemble equipment protecting key parts with ANTT.</p> <p>As per ANTT policy clean gloves from a dedicated box need only to be worn if there is risk of exposure to bodily fluids.</p> <p><u>You must wear sterile gloves if you feel your ANTT will be compromised.</u></p> <p>If you are accessing a double septum Portacath you must prepare equipment to access both septums at this point.</p>
10	<p>Prepare Sodium Chloride 0.9% 10ml flush (or prefilled syringe) and heparinised saline lock (100units/ml) (if needed).</p> <p>Two resgistered nurses, one of whom is competent in giving IVI medication via central lines must independently check the saline flush and heparin lock and positively identify the patient.</p>
11	<p>Prime the Portacath Needle(s) and integrated line with Sodium Chloride 0.9%, close the clamp(s) then attach an empty 10ml syringe.</p> <p>If leaving the Portacath Needle(s) in situ you must attach a Needlefree Hub to the end of the integrated line before flushing.</p>
12	<p>Take the prepared equipment to the child (at the bedside / treatment room / appropriate area)</p>
13	<p>Clean your hands.</p> <p>Put on clean gloves, as there is risk of exposure to bodily fluid when accessing a Portacath.</p> <p><u>Wear sterile gloves should you feel your ANTT could be compromised.</u></p>
14	<p>Using the Chlorhexidine 2% and Alcohol 70% skin preparation applicator, clean the area over the Portacath. The sponge must be gently pressed against the patient's skin in order to apply the antiseptic solution and a back and forth action of the sponge should be used for 30 seconds, initially up and down then side to side and leave to dry for at least 30 seconds. Do not continue until the cleaned area is dry.</p> <p>If you are accessing a double septum Portacath you must clean both septum at this point.</p>

15	<p>Whilst wearing your gloves, locate the edges of the device and hold firmly using the thumb and first finger of the non-dominant hand in a 'C' position.</p> <p>Pick up the primed Portacath Needle and syringe using the dominant hand.</p> <p>Remove the sheath from the needle.</p>
16	<p>Using a firm smooth movement push the Portacath Needle through the skin in the centre of the Portacath septum at a 90 degree angle, until the needle hits the back of the Portacathal chamber.</p>
17	<p>Undo the clamp and pull back gently until flashback (1-2mls of blood) is obtained in the syringe, discard the syringe containing the blood, attach syringe containing Sodium Chloride 0.9%, administer the flush into the line checking for signs of leakage, pain or swelling around the wound site.</p> <p><b>(Note:</b> not all ports bleed back, if you cannot get the Portacath to bleed back you must seek help) See Portacath Troubleshooting (<a href="#">Appendix 2</a>)</p>
18	<p>Using positive pressure, clamp line and remove syringe.</p> <p>If using line to administer Medication or Infusion attach and commence at this point.</p> <p>If Portacath is not being used immediately or just being flushed routinely, lock the line using Heparinised Sodium Chloride (100 units/ml) (as per prescription)</p> <p>This should be given using a push-pause turbulent flow technique and a positive pressure lock with the last 0.5 ml (ensuring the line is firmly clamped).</p> <p>Wipe the needlefree hub using the Chlorhexidine 2% and Alcohol 70% wipe.</p>
19	<p>If accessing a double septum Portacath you must repeat stages 15-18 using exactly the same method for the second Portacath septum before continuing with the stages below.</p>
20	<p style="text-align: center;"><u><b>Securing the needle</b></u></p> <p>Using ANTT apply a sterile transparent semi- permeable dressing (IV 3000).</p> <p>If accessing a double septum Portacath you will require two separate dressings.</p> <p>The dressing should cover the needle and Portacath and approximately one inch of the integrated line which should be positioned comfortably ensuring the access hub is not covered.</p>

21	<p style="text-align: center;"><u>Removing the needle</u></p> <p>To remove the needle relocate the edges of the Portacath and hold firmly using the thumb and first finger of the non-dominant hand in a C position.</p> <p>Using the dominant hand, lift the arm of the safe sharps Portacath needle, holding the outer cover between your first and third finger depress the plunger with your second finger as you withdraw the needle.</p> <p>Cover the wound with a sterile dressing if required.</p>
22	<p style="text-align: center;">Ensure child/young person is comfortable.</p> <p>Remove your gloves at the bedside and place into the tray for disposal. Clean your hands with alcohol handrub or soap and water if exposed to blood /bodily fluids according to UHL Hand Hygiene Policy.</p>
23	<p>Dispose of all sharps and syringes into a sharps bin and other equipment into an orange bag and clean the tray using Clinell wipes before putting it away.</p> <p>If splashes of blood are present please use Milton as per blood spillage guidance putting on the appropriate PPE. Please then clean your hands with soap and water after cleaning.</p>
24	<p>Document procedure in child/young person's notes using a Portacathacath sticker (see appendix).</p> <p>Ensure Prescription chart is completed.</p>

### **3. Education and Training**

Registered Nurses who have existing central line competency must complete Portacath training to achieve competency.

This requires a practical workbooklet to be completed, accessed through the Women's and Childrens Education Team.

Any other registered staff who have responsibility for medicines management in their current role and would deem this skill necessary for their role should contact the Women's and Childrens Education Team for appropriate guidance.

Please note this skill is not currently within the scope of practice policy for Registered Nursing Associates.

### **4. Monitoring Compliance**

None

## **5. Supporting References**

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Mighten, J. (2019) Care and management of children with totally implanted central venous access device: Portacath. Nursing Children and Young People. 31(3)

Using Chloraprep Labels, Warnings, MSDS, Surgical Prep – BD [www.bd.com/en-uk/products/infection-prevention/chloraprep-patient-preoperative-skin-preparation/labeled-warnings](http://www.bd.com/en-uk/products/infection-prevention/chloraprep-patient-preoperative-skin-preparation/labeled-warnings) [accessed 16/08/2022]

## **6. Key Words**

Safety (Huber) Portacath Needle, Portacath, Totally Implanted Venous Access Device, Safe, Sharp

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**The Trust recognises the diversity of the local community it serves. Our aim therefore is to provide a safe environment free from discrimination and treat all individuals fairly with dignity and appropriately according to their needs. As part of its development, this policy and its impact on equality have been reviewed and no detriment was identified.**

<b>CONTACT AND REVIEW DETAILS</b>	
<b>Lead (Name and Title)</b> Holly Dowers – Education Practice Development Nurse	<b>Executive Lead</b> Chief Nurse
Details of Changes made during review: Removal of any reference to non Safe sharps equipment Changed practice to ANTT (with sterile gloves to protect key parts) Changed order of preparation of equipment Changed flashback procedure Added new trouble shooting guide Added manufacturers site cleaning instructions Added Clinell wipes to equipment list Added additional person to support with procedure Updated references Added education and training Changed from SOP to guideline Changed to registered nurses not registered professionals Added related policies and procedures	



## Appendix 1: Accessing portacath sticker

Leicester Children's Hospital

University Hospitals of Leicester NHS Trust

**ACCESSING PORTACATH**

Ensure completed by person inserting needle

Patient ID number: \_\_\_\_\_

Needle inserted using aseptic technique \_\_\_\_\_

2% Chlorhexidine in 70% alcohol as skin prep: \_\_\_\_\_

Semi-permeable transparent dressing applied: \_\_\_\_\_

Date inserted: \_\_\_\_\_

Date of renewal: \_\_\_\_\_

Size of needle \_\_\_\_\_

Inserted by (print name; sign): \_\_\_\_\_

9/18

## Appendix 2: Portacath troubleshooting

