

# Intravenous Antibiotics via a Port-a-Cath at home for Cystic Fibrosis, using an infusion device

## Information for Parents/Carers

Addressograph

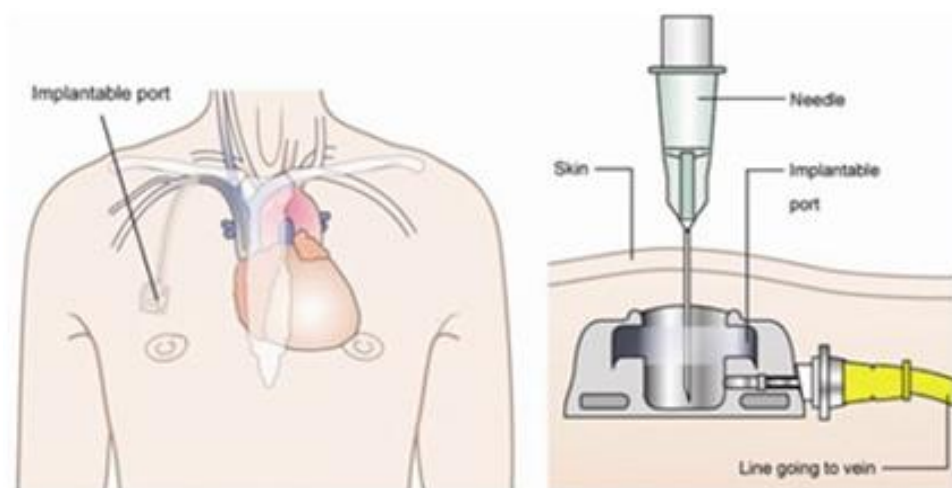
Name: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

DOB: \_\_\_\_/\_\_\_\_/\_\_\_\_

NHS No. \_\_\_\_\_



## Signature of care givers

Name (printed)	Signature	Designation/Role

The aim of this leaflet is to ensure that parents/carers will feel safe and confident in giving antibiotic treatment at home.

Following training and reading this leaflet you should:

- Know the procedure for administering antibiotic treatment via a port-a-cath.
- Be aware of how to deal with problems that can occur when administering antibiotics
- Know how to acquire general advice and emergency help.

If you have any concerns or questions regarding your child's treatment, telephone the Children and Young People's Home Care Team (C&YPHCT) on 01270 612071. Available Monday to Friday, 8.30am - 4.00pm.

Outside these times, contact the Child and Adolescent Unit (CAU) on 01270 612073.

The timing of your child's antibiotic therapy will depend largely on the drug prescribed.

Where the drug is given 3 times a day, intervals of 8 hours should be aimed for. However, a routine of 1 dose before school, 1 dose after school and 1 dose last thing at night is most reasonable.

Where the drug is given 4 times a day the most practical times are 6.00am, 12 midday, 6.00pm and midnight.

Some antibiotics e.g. Tobramycin require the monitoring of drug levels by blood sampling. This will be arranged with you and carried out in the Children's Outpatients Department.

## Possible problems with a Port-a-cath

Problem	Solution
<b>Infection</b> – signs of infection can be pain, inflammation, redness or swelling around site.	Contact the C&YPHCT or CAU (telephone numbers above). They will advise you on action to take which may include attending the hospital.
<b>Adverse reaction</b> – if your child develops a rash, itching, nausea or vomiting during antibiotic therapy this may be a sign of an adverse reaction although this is rare as this usually occurs during initial treatment in hospital.	Contact the C&YPHCT or CAU.  If the child is unwell or collapsed call an ambulance and place the child in the recovery position.
<b>Leakage</b> – if leakage out of the port occurs you may inject into the surrounding tissue, signs of leakage can be pain, inflammation, redness or swelling around site.	Contact the C&YPHCT or CAU. They will advise you on action to take which may include attending the hospital Stop the infusion immediately

## Procedure for Administering Antibiotics via a Port-a-cath

Ensure you have the correct equipment prior to commencing preparation of the antibiotics.

### For each course of antibiotics you will need:

- Pre-mixed Antibiotics for injection - usually 2 antibiotics are given and will be prepared by Baxters for you. (These will be prepared in an infusion device. Remove from the fridge 4- 6 hours before use or as directed)
- Prepared 20ml syringe of Sodium chloride 0.9% ("saline")
- 10mls Heparinised saline ampoule (10 units/ml)
- 10ml syringe
- Sterile dressing pack
- Non needle connector (Needle free device) - to be changed every 5 days
- Gripper needle/ straw x 2
- Sanicloths
- I.V. 3000 dressing
- Tray
- Hibiscrub to wash hands
- Manusept hand rub
- Skin cleanser
- Sharps box
- Tape to secure administration set

**It is best to prepare the antibiotics for injection in a quiet, clean place where equipment can be stored nearby and hand washing facilities are available close at hand.**

**When administering your treatment at home it is important that:**

Action	Rationale
<b>Any hoovering or dusting has finished at least one hour prior to administration of treatment. All doors and windows are closed. Only people who may be helping you are present in the room. No pets are in the room.</b>	To reduce the risk of infection.
<b>Collect together the items you require.</b>	To reduce the need to interrupt the procedure which could lead to an increased risk of infection.
<b>Check that none of the packaging is wet or damaged.</b>	To reduce the risk of infection.
<b>Check correct drugs are available and are within the expiry date.</b>	To reduce the risk of incorrect or out of date drugs being administered.
<b>Wash hands using Hibiscrub and dry with kitchen towel.</b>	To reduce the risk of infection.
<b>Clean tray with a Sanicloth.</b>	To provide a clean surface upon which to lay out all equipment and to reduce the risk of infection.

Action	Rationale
Open sterile dressing pack using the corners to open the outer sterile sheet.	To provide a sterile area to work on.
Empty all equipment onto the sterile area without touching.	To maintain sterility of equipment to reduce the risk of infection.
Clean the outside of the pre-mixed syringe, and the infusion devices with the antibiotics with a Sanicloth then place onto a sterile area.	Although prepared in a sterile environment the syringes are packed in a non-sterile area.
Wash hands again with Hibiscrub or clean hands with Manusept hand rub and allow them to dry.	To ensure hands are clean after opening and preparing equipment so as to reduce the risk of infection.
Prepare Antibiotics. Ready-made antibiotics are prepared by Baxters.	To reduce the risk of infection.
<b>Preparation of 1<sup>st</sup> Antibiotic using an infusion device</b>	
The antibiotic is prepared by Baxters in a small plastic bottle called an intermate.	To reduce the risk of infection.
Check label for correct name, dose and expiry date.	To prevent incorrect drug administration.
Remove the Winged luer cap from the end of the infusor tubing. Check to make sure the liquid has moved to the end of the tubing.	To prime the extension set and prevent air being infused into the central venous line.
Replace the winged luer cap.	
<b>Sodium Chloride</b>	
20mls of Sodium chloride 0.9% will be prepared in pharmacy to be used for a flush.	<b>Some drugs cannot be mixed together, therefore it is essential that Sodium Chloride is used before and between each drug - this includes flushing before Heparinised Saline is finally used to lock the IV line.</b>
Remove plastic stopper and remove air bubbles.	To avoid the risk of air in the Central venous line.
<b>Heparin</b>	
5mls of Heparinised saline (10 units in 1 ml) – Attach a filter straw or needle to the syringe, then using a piece of gauze open the vial of heparin. Put the filter straw/ needle into the open vial of heparin and withdraw 5 mls. Now put back onto your dressing pack until the end of the antibiotics.	<b>Heparin is used as a 'lock' to prevent blood clotting in the Port-a-cath.</b>

Action	Rationale
<b>Administration of Antibiotics</b>	
<p><b>Always give the exact dosage set by the hospital which will be written on your prescribed drugs.</b></p> <p><b>Observe site of Port-a-cath.</b></p> <p><b>Expose the Needle free device on the exit site of Port-a-cath extension.</b></p> <p><b>Hold line and bionnector with a clean Sanicloth.</b></p> <p><b>Clean Needle free device with a clean Sanicloth for 20 seconds and discard wipe.</b></p> <p><b>Allow to dry.</b></p> <p><b>Remove needle and attach syringe containing sodium chloride 0.9% to needle free device.</b></p> <p><b>Unclamp the line</b></p>	<p>To observe for any signs of infection - redness, swelling, pain or leakage.</p> <p>To give a firm-hold onto the line.</p> <p>To prevent contamination of the line - Chlorhexidine is antifungal and antibacterial.</p>
<p><b>Slowly inject 5mls sodium chloride observing for any signs of leakage, swelling or pain.</b></p>	<p>To avoid drug going out of the Port-a-cath and into the surrounding tissues.</p>
<p><b>Stop injecting if you feel any resistance or see any signs of leakage, swelling or if any pain.</b></p>	
<p><b>Clamp the line.</b></p>	
<b>Administration of 1<sup>st</sup> Antibiotic</b>	
<p><b>Remove the winged luer cap and attach extension set to needle free device.</b></p> <p><b>Open clip and unclamp line.</b></p> <p><b>Fold sterile sheet over clean area until infusion completed.</b></p> <p><b>Once antibiotic completed clamp the line and detach the antibiotic tubing and then attach the syringe containing Sodium chloride.</b></p> <p><b>Unclamp the line and slowly inject 10mls Sodium chloride observing for</b></p>	<p>To flush the line between drugs.</p>

Action	Rationale
<p>any signs of leakage, swelling or pain.</p> <p><b>Very slowly infuse 10mls Sodium chloride over 10 mins</b> Clamp the line.</p> <p>Remove syringe containing Sodium chloride.</p>	<p>To avoid remaining Antibiotic in the line being given too quickly</p>
<b>Administration of 2<sup>nd</sup> Antibiotic using infusion device</b>	
<p>Remove the winged luer cap and attach extension set to needle free device.</p> <p>Open clip and unclamp the line.</p> <p>Fold sterile sheet over clean area until infusion completed.</p>	<p>Ensure body temperature is maintained to facilitate effective infusion (avoid extremes of heat and cold).</p> <p>To ensure total volume of drug is infused slowly. The antibiotic is infused slowly through the device, it must be given slowly to avoid any complications. To keep sterile area clean while antibiotic infused.</p>
<b>When infusion is completed</b>	
<p>Wash hands with Hibiscrub and dry.</p> <p>Clean connection between extension set and needle free device using an Sanicloth and remove extension set</p> <p>Attach syringe containing Sodium chloride 0.9%.</p> <p>Unclamp the line.</p> <p><b>Very slowly infuse 10mls Sodium chloride over 10 mins</b></p>	<p>To ensure hands are clean.</p> <p>To flush the line between drugs.</p> <p>To avoid remaining Antibiotic in the line being given too quickly</p>
<p>Ask assistant to clamp the line.</p> <p>Remove syringe containing Sodium chloride.</p> <p>Attach syringe containing Heparinised saline (10 units per ml) to needle free device.</p> <p>Unclamp the line.</p> <p>Slowly inject 5mls Heparinised saline (10 units per ml) <b>Stop injecting if you feel any resistance or see any signs of leakage, swelling or if any pain.</b></p>	

Action	Rationale
<p><b>As you reach the last 0.5 ml clamp the line as you continue to inject Heparin.</b></p> <p><b>Check needle free device is secure and dressing intact.</b></p> <p><b>When the last dose of the 2 week course of antibiotics has been given it is necessary to flush the Port-a-cath with Heparinised saline 100 units/ml x 4mls.</b></p>	<p>To create a 'Heparin lock' which will prevent clotting of the line.</p> <p>To prevent blood clotting in the Port-a-cath while it is not in use.</p>
<b>Tidying up</b>	
<p><b>All needles, ampoules and syringes should go into sharps box.</b></p> <p><b>Disposing of all other waste into carrier bag or as advised e.g. recycling.</b></p> <p><b>Store all equipment safely, dry, cool and out of reach of children.</b></p>	<p>To prevent injury to self and others.</p> <p>To prevent damage to items and injury to children.</p>

## Teaching Checklist for Administering Antibiotics via a Port-a-cath

Name of carer:.....

Tick when  
completed

<b>Hygiene</b>	Hand washing	
	Preparation of the antibiotics	
<b>Preparation</b>	Preparation of the child	
	Preparation of the equipment	
	Check correct antibiotic – name, dose expiry date	
<b>Procedure</b>	Priming line	
	How to administer antibiotics	
	Flushing line	
	How to administer heparin	
<b>Recording and reporting</b>	Care of equipment	
	Disposal of waste	
	Knowledge of complications	
<b>Any other care requirements or instructions</b>		

Signature.....

Print.....

Date.....



## Certificate of Instruction

**Child and Adolescent Unit**

**Children and Young  
People's Home Care Team**

Patient's name: \_\_\_\_\_ DOB: \_\_\_\_\_

I agree that I have received written guidelines and been instructed how to:

\_\_\_\_\_

and now feel confident and competent to carry out this procedure/treatment.

I understand what problems may arise and what to do if they occur.

Parent / legal guardian / patient's signature: (print & sign)

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

Signature of registered nurse assessing competency: (print & sign)

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

Date for review: \_\_\_\_\_

**Review Date**

**Parent / legal guardian**

**Nurse assessor**

\_\_\_\_\_  
\_\_\_\_\_  
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Name/NMC Stamp
Role
Signature

This information is available in audio, Braille, large print and other languages. To request a copy, please telephone 01270 612071.

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