

Central Venous Catheter (CVC): Step by Step Guide for Parents/Carers

What is a CVC?

A CVC is a long, flexible tube which is inserted into a large vein. The CVC line is chosen for use in children on long term IV medication, and as it is long and flexible they can last much longer than peripheral lines (such as cannula's) reducing the need for multiple cannulation.

Care of a CVC line

The main principle of line care is the prevention of infection. Steps to minimise infection include good hand washing before and after handling the line, and keeping the site/dressings clean, dry and secure. CVC line dressings will be changed routinely once a week.

The CVC will be secured with stitches and covered with an adhesive see-through dressing which needs to cover the entry site of the line. The line and dressing must remain dry at all times, so cannot be submerged in water. The patient is able to shallow bath but the line and dressing must be kept away from the water as much as possible. The line can be taped over the patients shoulder or to their chest and covered with a towel whilst in the bath to reduce the risk of the line being splashed or falling in the water. Any splashes should be gently patted dry with a towel. Swimming is not recommended whilst the line is in situ. Any concerns with the line or dressing contact the community nurses or the Paediatric OPAT team (p-OPAT).

Signs of a line infection

It is essential that your child is observed for any signs of a line infection. These include:

- Raised temperature and/or chill
- Persistent irritability/inconsolability
- Redness/swelling/discharge from around the line site
- Increased pain around the line site (note that many patient due have tenderness whilst the line is in situ but concern must be raised if this suddenly increases)
- The site and/or skin around the site hot to touch

Other concerns

If you have any other concerns about your child becoming more unwell despite being on intravenous antibiotics, please contact the p-OPAT team or on-call paediatric registrar and if required, we can arrange for them to be urgently reviewed.

Complications

Serious complications with CVC lines are fortunately rare, however if you are concerned, the following table provides quick reference on what to do next:

Problem Solving

Problem	Possible Cause	What to do?
<ul style="list-style-type: none"> • Temperature/Chills • Tenderness/Redness/Puss at line site 	<ul style="list-style-type: none"> • Infection 	<ul style="list-style-type: none"> • Contact community nurses if available • Inform p-OPAT team or out of hours Registrar
<ul style="list-style-type: none"> • Swelling around line site 	<ul style="list-style-type: none"> • Line displacement • Infection 	<ul style="list-style-type: none"> • Contact community nurses if available • Inform p-OPAT team or out of hours Registrar
<ul style="list-style-type: none"> • Fluid leaking from line or line site 	<ul style="list-style-type: none"> • Line breakage • Line displacement 	<ul style="list-style-type: none"> • Tighten bung if loose • If breakage noted, clamp line above breakage or if unable to clamp pinch line at site of breakage • Contact community nurses if available • Inform p-OPAT team or out of hours Registrar
<ul style="list-style-type: none"> • Bleeding from line site 	<ul style="list-style-type: none"> • Line displacement • Trauma/injury <p>Note: a small amount of bleeding from the line site is normal in the first 24 hours post insertion, as long as the dressing remains in tact and secure</p>	<ul style="list-style-type: none"> • Place a sterile gauze pad over the line site on top of the dressing and hold until bleeding stops • Contact community nurses if available • Inform p-OPAT team or out of hours Registrar
<ul style="list-style-type: none"> • Dressing becomes loose / falls off / wet / dirty 		<ul style="list-style-type: none"> • Place a sterile gauze pad over the line and tape securely • Contact community nurses if available
<ul style="list-style-type: none"> • CVC line comes out 		<ul style="list-style-type: none"> • Place a sterile gauze pad over line site and press firmly until bleeding stops • Seek medical assistance IMMEDIATELY • Inform p-OPAT team or out of hours Registrar

Contact Details

Community Nurses (08.00 - 17.00):

p-OPAT team Helen Green / Sanjay Patel / Saul Faust (08.00 - 17.00): *****

Out of Hours Medical Registrar (17.00 - 08.00): *** **** * Bleep ****