Advice for District Nurses

Information for flushing and dressing an open-ended (PICC)

Your patient had an open-ended peripherally inserted central catheter (PICC) inserted on

The tip of the lumen is positioned in the superior vena cava and requires a strict aseptic (non touch) technique whenever accessing or dressing the device. The end of the PICC line exits the body on the upper arm.

The PICC will require a weekly flush with 10mls of sterile 0.9% saline and a dressing change at least weekly or as required. The procedure for flushing and dressing the PICC is outlined below.

Potential complications:

- **Infection**
  Redness at or around the PICC exit site or tracking up the PICC tract, pus, exudate or fluid at exit site, temperature above 37.5, shake or shivers particularly after the PICC has been used.

- **Bleeding from insertion site**
  If this occurs using sterile technique, change the dressing and re-apply a sterile gauze under the semi-permeable IV dressing. Apply pressure at the insertion site for up to 5 minutes, if bleeding persists contact the procedure team on 0161 446 3446 (8:00am - 5:00pm) or The Christie Hotline outside of working hours on 0161 446 3658.

- **PICC related thrombosis/blood clot**
  On the same side the PICC has been placed; discomfort/pain/oedema/engorged veins in the arm, shoulder, neck, chest, leakage of fluid at entry site, discoloration of extremity, unexplained fever. This must be reported for immediate medical attention, an ultrasound Doppler maybe arranged to assess if a thrombosis is present.

- **Mechanical phlebitis**
  This is inflammation of the vein caused by the body’s response to the catheter and may involve the inner aspect of the arm around the PICC insertion site. This may occur more commonly during the first 7 days post insertion, but may be a delayed response. Please contact the procedure team on 0161 446 3446 (8:00am - 5:00pm) or The Christie Hotline outside of working hours on 0161 446 3658.

We advise patients to perform light arm exercises and to apply warm compresses intermittently (for example, 20 minutes at a time for 48 hours) post insertion. This will dilate the vein and encourage blood flow, and may need to be continued until the reaction settles. We also ask patients to monitor their temperature during this period, and to contact The Christie Hotline on 0161 446 3658 if abnormalities are detected.
Procedure for flushing and dressing a clamped PICC

Equipment:
- Clean field ie plastic tray or dressing towel
- Apron
- Chlorhexidine gluconate 2% and isopropyl alcohol 70% (eg ChloraPrep® 2%)
- Steri-strips and STATLOCK®/GRIPLOCK
- 2 large IV 3000 dressings (10cm x 14cm) or transparent occlusive dressing

1. Wash and dry hands thoroughly.
2. Put on apron.
3. Prepare clean field i.e. clean plastic tray with 2% chlorhexidine wipe (sani-cloth) and allow to air dry, open dressing towel.
4. Place all equipment onto the clean field, ensuring key parts are protected.
   The PICC is most at risk of being pulled out when the dressing is being changed, the PICC MUST BE SECURED throughout the dressing change.
5. Loosen and very carefully remove the soiled dressing ensuring the PICC remains secured.
6. Wash or alcohol gel hands again and put on non-sterile gloves.
7. Clean the exit site (minimum 30 seconds) using chlorhexidine gluconate 2% and isopropyl alcohol 70%. ChloraPrep® is recommended. Allow to air dry.
8. Replace steri-strips, STATLOCK® and semi-permeable IV dressing.
9. Inspect site for signs infection, thrombosis and phlebitis.

FLUSHING (when a flush only is needed blood withdrawal is not necessary)

Equipment:
- Blue tray or sterile field e.g. dressing pack
- Disposable apron
- Non-sterile gloves
- Bin
- Alcogel
- 3x2% chlorhexidine 70% alcohol wipes eg sani-cloth
- 1x10ml posiflush or 1x10 ml luer lock syringe, 1x10ml saline, 1xdrawing up needle, 1xbung

1. Clean hands with soap and water or alcogel using the six step technique. Dry.
2. Put on apron.
4. Assemble equipment in the tray using an Aseptic Non-Touch Technique (ANTT), protecting the key parts.
5. If not using posiflush, draw up saline and place a bung on the syringe or carefully return to packet, protecting the key part. Place in tray.
6. Clean hands and dry hands.
7. Assess sites for signs of infection or thrombosis.
8. Check the line is intact and the clamp is closed.
9. Clean and dry hands and put on non-sterile gloves.
10. Ensure the clamp is closed.
11. Remove bung and place in bin.
12. Hold the line at all times to protect the key part.
13. Clean the hub of the line thoroughly with 3 parts of a 2% chlorhexidine 70% alcohol wipe, for a minimum of 15 seconds with 3 parts of the wipe. Place wipe in the bin.
15. Attach 10 ml saline syringe.
16. Open clamp.
17. Flush using the push pause technique.
18. The line must be clamped as the last ml is being administered.
19. Dispose of syringe.
20. If required clean the hub with a 2% chlorhexidine 70% alcohol wipe and allow to dry.
21. Attach a clean bung to the hub.
22. Dispose of any remaining waste appropriately.
23. Clean blue tray or dispose of sterile field.
24. Remove apron and gloves.
25. Clean and dry hands.

If after following the protocol and if necessary the PICC algorithm, you have any queries or concern about your patients' PICCs please contact the procedure team at The Christie (8:00am – 5:00pm, Monday to Friday) on 0161 446 3446.

If you need information in a different format, such as easy read, large print, BSL, braille, email, SMS text or other communication support, please tell your ward or clinic nurse.

Contact The Christie Hotline for urgent support and specialist advice

The Christie Hotline:
0161 446 3658
Open 24 hours a day, 7 days a week

We try to ensure that all our information given to patients is accurate, balanced and based on the most up-to-date scientific evidence. If you would like to have details about the sources used please contact patient.information@christie.nhs.uk

For more information about The Christie and our services, please visit www.christie.nhs.uk or visit the cancer information centres at Withington, Oldham or Salford.
Management of problems related to PICCs in the community

**UNABLE TO ASPIRATE BLOOD?**

Remove dressing & ensure the catheter is not kinked
(Please take care when removing the dressing to ensure the catheter remains secured
with steri-strips and STATLOCK®)

**IF STILL UNABLE TO ASPIRATE BLOOD, PLEASE DO NOT PROCEED WITH FLUSH**

Is the patient attending hospital in the next 7 days?

**YES**

The line will be flushed at this appointment.
This is not a medical emergency.

**NO**

Refer to the procedure team in office hours.
The catheter will be flushed, either at The Christie, or a local oncology unit.

Possible causes:
- Line tip against vessel wall
- Fibrin sheath over the line tip
- Misplacement of line tip

If there is evidence of pain/swelling in the neck or the arm, this could be due to a thrombus and prompt treatment is required. Please refer to relevant medical team at The Christie. An ultra-sound doppler of the vein will be performed. Or contact The Christie Hotline on 0161 446 3658.

**SUSPECTED INFECTION**

**EXIT SITE/INFECTION**
(Inflammation/soreness/pain/oozing at exit site)

Swab exit site for C&S. Refer to GP for oral antibiotics or relevant medical team at The Christie. If the patient is post chemotherapy 7-10 days, the patient may be neutropenic, please take full blood count.

**LINE SEPSIS – SYSTEMIC INFECTION**
Shivering/rigors/pyrexia when line has been recently accessed.

THIS IS A MEDICAL EMERGENCY
Contact The Christie Hotline
Tel:0161 446 3658

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