



# Central Venous Access Devices (CVADs) Care and Management Policy

This procedural document supersedes: PAT/T 23 v.4 – Central Venous Access Devices (CVADs) Care and Management Policy.



**Did you print this document yourself?**

The Trust discourages the retention of hard copies of policies and can only guarantee that the policy on the Trust website is the most up-to-date version. **If, for exceptional reasons, you need to print a policy off, it is only valid for 24 hours**

Name and title of author/reviewer	Carol Scholey, Infection Prevention & Control Practitioner
Date revised	August 2015
Approved by (Committee/Group)	Policy Approval and Compliance Group
Date approved	18 November 2015
Date issued	24 November 2015
Next review date	October 2018
Target audience:	Trust-wide

**Central Venous Access Devices (CVADs)****Care and Management Policy****Amendment Form**

<b>Version</b>	<b>Date Issued</b>	<b>Brief Summary of Changes</b>	<b>Author</b>
Version 5	24 November 2015	<ul style="list-style-type: none"> <li>• Introduction changed to reflect the need for the policy.</li> <li>• Updated sections to reflect practice – link to Royal Marsden</li> <li>• All sections updated in line with national guidelines.</li> <li>• Updated references</li> <li>• Removal of appendices 1-6</li> <li>• Addition of new appendices 1 CVAD IPOC</li> <li>• Equality Impact Assessment Appendix 2</li> </ul>	Carol Scholey
Version 4	December 2012	<ul style="list-style-type: none"> <li>• Title of Policy to Central Venous Access Devices (CVAD); Care and Management</li> <li>• New style format used</li> <li>• Moved specific guidance to appendices</li> <li>• Added new pictorial protocol appendices</li> </ul>	L Lowry Dr D Wood
Version 3	September 2009	<ul style="list-style-type: none"> <li>• Added Appendix 2 – Dressing change guidance for Central Venous Access Devices (CVADs)</li> <li>• Appendix 3 - Total Parenteral Nutrition (TPN) - Best Practice Guidelines</li> </ul>	Louise Lowry
Version 2	August 2008	<ul style="list-style-type: none"> <li>• Title from Guidelines to Policy</li> <li>• Section on TPN updated – page 10</li> <li>• Section on CVC line removal incorporated – page 11</li> <li>• Appendix added – pages 15 and 17</li> <li>• References updated</li> </ul>	Gary Donaghue, Emma Stables and the Invasive Device Group

**Central Venous Access Devices (CVADs)**  
**Care and Management Policy**

**Contents**

<b>Section</b>		<b>Page</b>
	Table of Contents	3
1	Introduction	4
2	Purpose	4
3	Duties and Responsibilities	4
4	Procedural Guidance	5
5	General Principles	6
6	Management and Care of CVAD	8
7	Training and Support	10
8	Monitoring Compliance with Procedural Document	10
9	Definitions	11
10	Equality Impact Assessment	11
11	Associated Trust Procedural Documents	12
12	References	12
<b>Appendix 1</b>	CVAD IPOC	14
<b>Appendix 2</b>	Equality Impact Assessment	17

## 1. INTRODUCTION

Central Venous Access Devices (CVADs) are used for short and long-term care. These devices enable the administration of fluids, drugs, blood products, parenteral nutrition, sampling of blood and central venous pressure monitoring. Catheter related blood stream infections (CR-BSI) associated with the insertion and maintenance of CVADs remain a significant risk to patients and a burden to the NHS (EPIC 3).

## 2. PURPOSE

The guidance content is based on national guidelines for the management of CVAD, and sound infection prevention and control principles.

The purpose of this guidance is to promote the appropriate and, safe use of CVADs throughout the Trust, and provide guidance for staff to:

1. Identify the need for CVAD and the selection of catheter type.
2. To undertake appropriate preparation prior to and during placement of CVAD.
3. To document the procedure.
4. To choose a relevant dressing and renew when appropriate.
5. To safely access the line when required.
6. To identify a line replacement strategy when required.

## 3. DUTIES AND RESPONSIBILITIES

**Operator** - should be a competent practitioner following appropriate training.

**Matrons** are responsible for ensuring implementation within their area by undertaking regular audits in ward rounds activities. Any deficits identified will be addressed to comply with guidance.

**Ward and Department Managers** are responsible for ensuring implementation within their area, and for ensuring all staff who work within the area adhere to the principles at all times.

**Consultant Medical Staff** are responsible for ensuring their junior staff read and understand this policy, and adhere to the principles contained in it at all times.

**Business Unit Management Teams** are responsible for monitoring implementation of this guidance, and for ensuring action is taken when staff fail to comply with the policy.

**Site Co-ordination Teams and Bed Managers** are responsible for ensuring patients are placed in accordance with this guidance, and for escalating any situations where safe placement cannot be achieved.

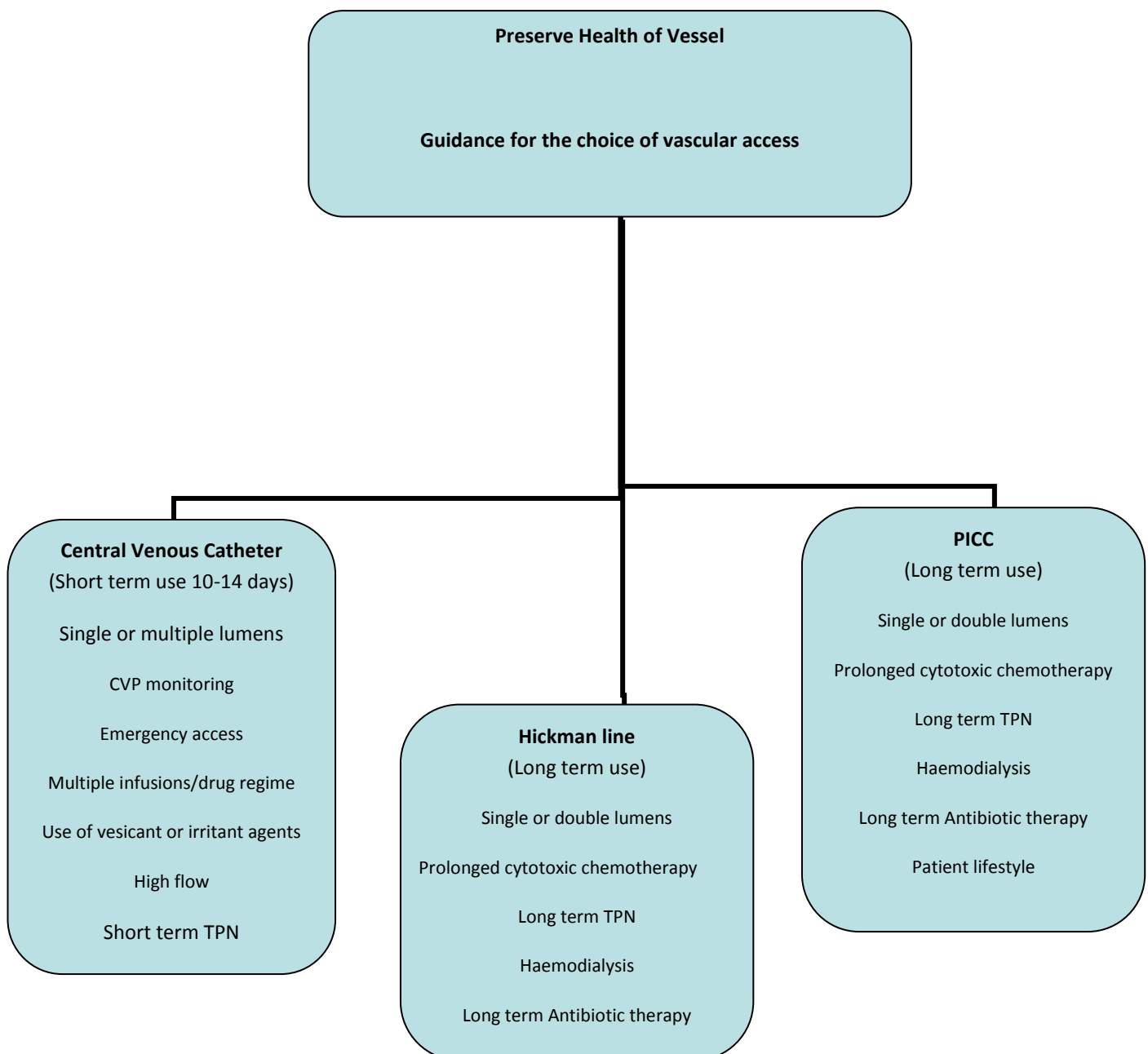
**On-call Managers** are responsible for providing senior and executive leadership to ensure implementation of this guidance, and for ensuring infection risks are fully considered and documented when complex decisions need to be made regarding capacity and patient flow.

**Board of Directors** - Their role is to support the implementation of a Board to Ward culture to support a Zero Tolerance approach to Health Care Associated Infections.

## 4. PROCEDURAL GUIDANCE

### 4.1 Choice of CVAD

There are a variety of CVADs available. The requirements of the patient will depend on the type of CVAD used.



## 4.2 Considerations Prior to Insertion of CVAD

Table 1

### POINTS TO CONSIDER PRIOR TO PLACEMENT OF CVAD

- Has the patient had:
  - Implanted pacemaker?
  - Previous surgery such as mastectomy?
  - Local infection?
  - Previous problems with CVAD insertion?
  - Surgery or radiotherapy to chest or neck?
  - Fractures such as clavicle?
- Does the patient have a clotting disorder?
- Does the patient have suitable venous access?
- What is the patient's cardio- respiratory function and are they able to lie flat?
- Is the patient known to be allergic to:
  - Local anaesthetic?
  - Sedation?
  - Dressing?
  - Cleaning solution?
- Is the patient cardiovascularly stable? (e.g. pacemaker – cardiac arrhythmias)
- Are there staff on the ward who are competent (completed the Clinical Skills training package) to care for the line and administer therapy?

## 4.3 Operator

CVAD **must** only be placed by trained and experienced staff.

## 5. GENERAL PRINCIPLES

- Prior to insertion of catheter, please ensure the appropriate consent is obtained in accordance with trust policy on consent (PAT/PA 2).
- Evidence based practice suggests that non tunnelled central venous catheters (CVC) account for the majority of CR-BSI. Peripherally inserted central venous catheters (PICC) or Tunnelled central venous catheters (Hickman) have a lower rate of infection (EPIC 3 2013).
- All planned placements of CVADs should be undertaken in radiology department, anaesthetic room, theatre, intensive care units, or clinical area designated fit for this purpose. **Bedside placement should not occur except in an emergency.**
- Keep to a minimum the number of lumens used (EPIC 3 2013).
- Ultrasound (USS) guidance should be used to facilitate central venous access. It is acknowledged the evidence for the use of USS for the sub-clavian approach is less robust than for the internal jugular approach.
- In emergency situations when ultrasound equipment and/or expertise is not

- immediately available, use anatomical landmark methods. Therefore, it is important that this method is taught alongside the 2-D ultrasound-guided technique (NICE 2002).
- Implantable catheters (ports) are more suitable for long term use requiring infrequent access. Consider ports for children needing long term access. Not presently inserted at this Trust. (Care and management as advised by inserting Hospital).
  - Femoral veins are only to be used when other routes are impossible and then the catheter removed as soon as practicably possible.

### 5.1 Insertion-Aseptic Technique

- Full barrier precautions (Gown, mask, eye protection, sterile gloves, full body drape) **MUST** be used during catheter placement. Full body drape is necessary to reduce risk of CVAD wire becoming contaminated during insertion.
- Hand hygiene in the form of surgical hand scrub should be undertaken when performing this procedure.
- Skin preparation: Sterile 2% Chlorhexidine in 70% Isopropyl Alcohol solution should be used to rigorously clean the skin prior to catheter placement. Allow the antiseptic to dry before breaching the skin.
- Use an alcoholic povidone-iodine solution for patients with a history of chlorhexidine sensitivity. *N.B. Aqueous 0.5% Chlorhexidine Gluconate products only to be used on neonates due to the risk of alcohol burns and toxicity (Vallance & Brown 2012).*
- When using Ultra sound, the operator **MUST** ensure the sterile probe cover and gel are used to reduce the risk of contaminating the sterile field.

### 5.2 Post Insertion

- Secure catheter with appropriate securement device. For example; stat-lock for PICC, sutures or stat-lock for jugular or subclavian and sutures for Hickman lines.
- All securement devices to be covered with approved sterile, transparent, semi-permeable dressing
- Chest x-ray **MUST** be obtained and reviewed by an experienced operator prior to use of catheter. This is to check position of catheter tip and rule out pneumothorax.
- All lumens should be flushed with Normal Saline to check patency of lumens prior to the use of the catheter.
- Length of PICC from insertion site to anchorage point must be measured and documented on both CVAD caresheet and in the medical notes, to help detect if PICC has dislodged.
- Needle free connector should be connected to all lumens; to reduce the risk of needle stick injury.
- Ensure that all sharps are used and disposed of in accordance to the Trust Policy – ‘Safe use and disposal of sharps’ (PAT/IC 8).
- The CVAD insertion **MUST** be documented in the patients’ records, including date, time,

site and clinician. To enable identification of any defective or contaminated CVADs, the batch number of the catheter used **MUST** be recorded (Medicines & Healthcare products Regulatory Agency 2004).

## 6. MANAGEMENT AND CARE OF CVAD

- Daily risk assessment for the continued requirement of the CVAD should be recorded in the medical records.
- Nursing care must be recorded and evaluated at least daily. This must include insertion/exit site VIP score. If VIP score is 2, swab insertion site and escalate to medical team, STOP using CVAD if possible and seek further advice from the Microbiologist re blood cultures and antibiotic therapy. See Appendix 1 for CVAD IPOC. (Excludes Paediatrics).
- Prontoderm foam must be used daily.
- MRSA screen taken weekly.
- Do not routinely replace short term CVADs as a means to reduce infection.
- Replacement of short term catheters under a guide wire exchange is only acceptable if the catheter is malfunctioning and there is no evidence of infection.
- Remove faulty lines immediately. Only extenuating circumstances, such as cardiac resuscitation could a faulty line be possibly left; and replaced when patient is stable.
- Remove any CVAD that is no longer required. Central lines and PICC can be removed on the ward. Tunnelled lines (Hickman) require referral to the vascular team or Radiology Nurses (PICC team) for removal. In an emergency situation. The consultant intensivists can be contacted for removal of Hickman lines.
- Patient should be placed in the Trendelenburg position (head slightly lower than feet) when removing a CVAD; **NOT** in an upright sitting position. This is to prevent risk of air embolism (British Committee for Standards in Haematology - BCSH 2007). Clinical areas who undertake the removal of CVADs need appropriate bed/couch to facilitate Trendelenburg positioning. For further guidance on removal of lines [refer to the Royal Marsden](#) (14.9) Clinical Procedure Manual.
- Blood products can be administered concurrently with another drug/infusion (including TPN) through a dual bore catheter (BCSH 2007).
- Needle free connectors should be replaced at 7 days /120 uses (Swan locks) 200 uses for Max plus devices used on PICC lines or sooner if device appears faulty.



## 6.1 Dressing change

The aim of an intravenous dressing is to minimize the contamination of the insertion site and provide stability of the device.

- Always use an aseptic technique.
- 2% chlorhexidine in 70% isopropyl alcohol should be used to rigorously clean the skin at every dressing change. If the patient has an allergy to chlorhexidine; iodine solution may be used. Allow the solution to dry.
- If a gauze dressing has been applied at the line insertion due to bleeding, it should be replaced by an approved sterile semi permeable dressing as soon as possible – within 48hours (EPIC 3 2013).
  - Chlorhexidine impregnated transparent semi-permeable dressing (CHG) recommended for patients receiving TPN via a CVAD.
  - Ported IV3000 transparent semi-permeable dressing for all other patients with a CVAD.
- Strict hand washing must be observed at all times, i.e. before and after touching line.
- Dressing should be changed immediately if loose, soiled, damp or routinely at 7 days [refer to the Royal Marsden](#) (14.1) Clinical Procedure Manual.
- **Exception** paediatrics – leave dressing as long as it remains intact. Do not use 2% CHG in alcohol on premature / preterm babies, use 0.5% aqueous based solution.
- When removing dressing from PICC line; pull dressing towards the insertion site to reduce risk of dislodgement.

## 6.2 Accessing CVAD

- Accessing a CVAD should be performed using aseptic technique.
- A CVAD should be flushed before and after every use, and at least once daily if not in use.
- For all CVADs (excluding renal) always use a 10ml syringe; smaller syringes create high pressure that will damage/rupture the line.
- Person accessing any CVAD device must have completed a competency based Package from Clinical Skills.
- Flushing with sodium chloride is recommended in general clinical areas. Specialized areas such as Haematology, oncology, critical care, paediatrics and renal will have local protocols for use of heparin flushes. Contact the Trusts pharmacy for advice.
- To access the CVAD for blood sampling, flushing of line etc. follow procedural guidance in the relevant chapter of the Royal Marsden 9<sup>th</sup> edition (2015). **Taking bloods from a CVAD should not be a routine occurrence.**

### 6.3 Suspected Infection

- If a catheter related infection is suspected, obtain blood cultures from each lumen of the CVAD together with a peripheral sample. Ensure the origin of each set of culture samples is clearly marked. Consider sepsis screen on the patient.
- If the patient is receiving TPN and catheter infection is suspected, obtain blood cultures as above; seek advice from microbiologist and gastroenterologist regarding the continuation of TPN while waiting for blood culture results.

#### Signs of infection (excluding Paediatrics)

- Hyperthermia  $>38^{\circ}\text{C}$  **OR** hypothermia  $<36^{\circ}\text{C}$
- Chills with rigors
- Tachycardia  $> 90\text{min}^{-1}$
- Tachypnoea  $> 20\text{min}^{-1}$
- WBC  $> 12.0$  OR WBC  $< 4.0$
- Inflammation, pain, swelling or heat around the central venous access device
- Raised CRP

## 7. TRAINING AND SUPPORT

Staff will receive instructions and direction regarding the management of CVAD's used in Trust from a number of sources:-

- Trust Policies and Procedures available on the Intranet
- Ward/departmental/line managers
- CVAD package from Clinical Skills.
- Education update sessions which can be delivered by a number of formats e.g. face to face and e-learning.
- Advice is also available from the Doncaster & Bassetlaw Hospitals NHS Foundation Trust Internet site.

## 8. MONITORING COMPLIANCE WITH THE PROCEDURAL DOCUMENT

The Infection Prevention and Control Team will review this policy in the following circumstances:-

- Every three years routinely.
- A prevalence study will be performed quarterly as part of the Infection Prevention and Control strategy.

Monitoring	Who	Frequency	How reviewed
The procedural document will be reviewed in the	Infection Prevention and Control	Every three years routinely, unless: <ul style="list-style-type: none"> <li>• When new national or</li> </ul>	

following circumstances:-	Practitioners	international guidance are received. <ul style="list-style-type: none"> <li>• When newly published evidence demonstrates need for change to current practice.</li> <li>• Action required from Root Cause Analysis Serious Incident Investigation report</li> </ul>	Policy will be approved and ratified by the Patient Safety Review Group
Audits – Patients at high risk of Catheter Related Blood Stream Infections (CRBSI) for TPN patients	Infection Prevention and Control Practitioners	Quarterly	Report disseminated to all clinical leads. Deficits identified will be addressed via agree action plan to comply with policy.
Compliance with guidelines to reduce risk of (CRBSI)	Infection Prevention and Control Practitioners	Daily	Line Surveillance
Training needs for management of CVAD's and Infection Prevention and Control	Ward and Department Managers Training and Education Department	Annually	Staffs Professional Development Appraisal. Attendance will be captured via OLM system.

## 9. DEFINITIONS

**CVAD** - Central Venous Access Device (generic- includes all types of central venous catheters).

**PICC**- Peripherally inserted central catheter. Long term use.

**Tunnelled Catheter** - Once inserted into the vein, the catheter is tunnelled under the skin to exit on the chest wall, to minimise migration of ascending microorganisms (e.g. Hickman catheters)

**Ports** - Portacath devices are used generally in paediatrics – not fitted at DBHFT. For long term use.

**TPN** - Total Parenteral Nutrition.

**Landmark method** - This involves passing the needle along the anticipated vein using surface anatomical landmarks and knowledge of the anatomy as a guide.

**Two Dimensional (2-D)** - This provides a 'real time' grey scale image of the anatomy imaging Ultrasound

**Bacteraemia** - Bacteria in the circulating blood.

## 10. EQUALITY IMPACT ASSESSMENT

As part of its development, this document and its impact on equality, an Equality Impact Assessment (EIA) has been conducted in line with the principles of the Equality Impact Assessment Policy CORP/EMP 27.

The Purpose of EIA is to minimise and if possible remove and disproportionate impact on employees and/or patients on the grounds of race, sex, disability, age, sexual orientation or religious belief. No detriment was identified. See Appendix 2.

## 11. ASSOCIATED TRUST PROCEDURAL DOCUMENTS

This policy should be read in conjunction with the following policies, particularly:

- Hand Hygiene (PAT/IC 5)
- Sharps Policy - Safe Use and Disposal (PAT/IC 8)
- Sharps Injuries Management and Other Blood or Body Fluid Exposure Incidents (PAT/IC 14)
- Consent to Examination or Treatment Policy (PAT/PA 2)
- Aseptic Non Touch Technique Policy (PAT/T 32)
- Trust Mental Capacity Act (PAT/PA 19)
- Equality Analysis Policy (CORP/EMP 27)
- Privacy and Dignity Policy (PAT/PA 28)
- Risk Identification, Assessment & Management Policy (CORP/RISK 30)
- Pathology Specimens - Collection and Handling of Pathology Specimens (PAT/IC 11)

## 12. REFERENCES

Bishop L, Dougherty L, Bodenham A, Mansi J, Crowe P, Kibbler C, Shannon M, Treleave J, British Committee for Standards in Haematology ( BCSH 2007). Guidelines on the insertion and management of Central Venous Access Devices in Adults. Int J. lab Hem 29: 261-278

Dougherty, L & Lamb, J (Eds.) (2008):2ND Edition: Vascular access in the Acute Care setting: INTRAVENOUS THERAPY IN NURSING PRACTICE: Blackwell Publishing, Oxford.pp.271- 320.

Dougherty, L & Lister, S: (Eds.) (2015): 9th Edition: THE ROYAL MARSDEN HOSPITAL MANUAL OF CLINICAL NURSING PROCEDURES: Blackwell Scientific Publ.: Oxford.

EPIC3: (2013): National Evidence-Based Guidelines for preventing Healthcare-Associated Infections in NHS Hospitals in England: online:- Section 4 page 77  
[http://www.his.org.uk/files/3113/8693/4808/epic3\\_National\\_Evidence-Based\\_Guidelines\\_for\\_Preventing\\_HCAI\\_in\\_NHSE.pdf](http://www.his.org.uk/files/3113/8693/4808/epic3_National_Evidence-Based_Guidelines_for_Preventing_HCAI_in_NHSE.pdf)

Medicines & Healthcare products Regulatory Agency [MHRA]: (2004): MEDICAL DEVICE ALERT: MDA/2004/01: January 2004: MHRA: London.

NICE [National Institute of Clinical Excellence]: (2002): GUIDANCE ON THE USE OF ULTRASOUND LOCATING DEVICES FOR PLACING CENTRAL VENOUS CATHETERS: September 2002: NICE: London.

NICE [National Institute of Clinical Excellence]: (2003): INFECTION CONTROL – PREVENTION OF HEALTHCARE-ASSOCIATED INFECTION IN PRIMARY AND COMMUNITY CARE – Clinical Guideline 2: June 2003: NICE: London.

Vallance A, Brown C. Measures to reduce infection in the neonatal intensive care unit. *Journal of Neonatal Nursing*. Volume 8 issue 5 2012

HMR 7



Doncaster and **NHS**  
Bassetlaw Hospitals  
NHS Foundation Trust

**NON - TUNNELLED & TUNNELLED  
CENTRAL VENOUS ACCESS DEVICE  
CARE SHEET**

AFFIX LABEL HERE IF AVAILABLE

NHS Number: \_\_\_\_\_  
District Number: \_\_\_\_\_  
Surname: \_\_\_\_\_  
Forename(s): \_\_\_\_\_  
Address: \_\_\_\_\_  
D.o.B.: \_\_\_\_\_

**To be completed when a patient has a non – tunnelled (Central line or PICC) OR tunnelled line (Hickman line).  
Document progress / variables on Daily Plan of Care.**

Date: \_\_\_\_\_ Ward: \_\_\_\_\_ Site: \_\_\_\_\_ Date inserted: \_\_\_\_\_

**ALL PATIENTS TO BE CLEANSED WITH PRONTODERM FOAM DAILY AND HAVE WEEKLY MRSA SCREENS**

1. **Accessing** a central venous line must be undertaken by a qualified and competent healthcare professional.
2. **Review** the clinical need for CVAD, and remove at earliest opportunity. Document visual score daily.
3. **Needle free** device must be attached to all lumens of central access device. Scrub the hub clean with 2% Chlorhexidine in 70% Isopropyl Alcohol swab prior to and also after accessing the device. (For Renal see local policy)
4. **Line dressings** should be changed at 48 hours after initial insertion if insertion site is not visible and then at 7 days or **IMMEDIATELY** thereafter if it becomes **LOOSE, excessively DAMP or SOILED**.
5. **A 10ml** syringe or larger should be used when accessing central venous device. Smaller syringes can cause rupture of line. (Renal have local protocol for use of syringes less than 10ml).
6. **TPN** - must have a dedicated lumen for administration.
  - **NO** blood to be taken from TPN lumen (unless blood culture for suspected line infection).
  - **NO** other fluids or medication to be administered via TPN lumen.
  - **CHG** - Chlorhexidine Gluconate IV Securement dressing. (For Renal see local protocol).
7. **Infection**; Observe patient for signs of infection:
  - Hyperthermia >38°C OR Hypothermia <36°C
  - Chills with Rigors
  - Tachycardia >90 min<sup>-1</sup>
  - Tachypnoea >20 min<sup>-1</sup>
  - WBC >12.0 OR WBC <4.0
  - Inflammation, pain, swelling, or heat around line site
  - Raised CRP (no obvious cause)
8. **Actions** to be taken if infection suspected
  - Discuss with medical team as soon as possible
  - Obtain blood cultures from Central Venous Access Device and a peripheral sample at same time, if line infection is suspected. Swab exit site if exudate present.
  - If device is removed due to suspected cause of infection, send tip to microbiology for culture and sensitivity, **routine tips should not be sent**.
9. **PICC**- Peripheral Inserted Central Catheter:
  - Use stat-lock to secure line, as not sutured.
  - Measure length of line from insertion site to anchorage point \_\_\_\_\_ cm. Check daily.

When removing dressing pull towards insertion site to reduce risk of dislodgement
10. **Hickman Line** – Incision site suture to be removed at 7 days. Exit site suture- remove at 21 days.  
N.B. If patient is to be discharged home with central venous access, ensure appropriate healthcare professional/ services are aware.
11. **RENAL**
  - If temporary line is a femoral – remove ASAP and within 7 days.
  - Jugular vein – remove/replace within 21 days.

**For troubleshooting see back of IPOC**





## TROUBLESHOOTING POST INSERTION

Problem	Cause	Action
Unable to aspirate	Obstruction, Sucking against vessel wall, Fibrin sheath, Pinch off, Kinked catheter Malposition	<ul style="list-style-type: none"> <li>• Visually check for kinking, if no resistance, attempt to flush and then aspirate.</li> <li>• Move arm, head and shoulder and attempt to aspirate.</li> <li>• X-ray to check position and for fibrin sheath</li> <li>• Specialist areas administer <b>KINASE "locks" for managing blockage</b> following local policies (Haem, Renal etc) and prescribed by doctors.</li> </ul> <p>Medication may be administered if the patient is NOT complaining of any discomfort. <b>If PICC or Hickman line contact Radiology Nurses to resolve problem if required.</b></p>
Swollen arm, hand or neck	Blood clot, Thrombus	<ul style="list-style-type: none"> <li>• Ask medical staff to arrange an Ultra sound scan looking for venous thrombosis.</li> <li>• If clot present ; patient will need anticoagulation and removal of line <b>immediately</b></li> </ul>
Unable to flush	Blood clot, thrombus Drug precipitate Pinch off Malplaced tip	<ul style="list-style-type: none"> <li>• Check line for kinking</li> <li>• Attempt to aspirate</li> <li>• Change position of patient</li> </ul> <p>Change needle free connector as may have clot behind it, attempt to flush again. If still unable to flush discuss with medical staff, patient might require a chest x-ray/ultrasound scan.</p> <p>If clot present; patient to have anticoagulation and line <b>removed immediately.</b></p>
Catheter damage	Repeated clamping Sharp object e.g. blade on insertion Use of small syringe to access line (e.g. 1ml, 2ml or 5ml). Faulty line	<ul style="list-style-type: none"> <li>• Clamps on line only to be used.</li> <li>• Use 10ml syringes or larger to access line.</li> <li>• <b>If line is fractured externally – Do not use line; ensure clamp is on.</b></li> <li>• <b>Refer to Radiology Nurses for line replacement OR critical care consultant for support</b></li> </ul>
Fluid leakage at insertion site	Catheter rupture Fibrin sheath Pinch off Infection	<ul style="list-style-type: none"> <li>• Flush line with 0.9% sodium chloride and observe leakage</li> <li>• Discuss with medical team as may need refer to Radiology Nurses for line replacement.</li> <li>• For critical care patients discuss with critical care consultant.</li> </ul>
Exudate at insertion site	Poor aseptic non-touch technique Localised infection	<ul style="list-style-type: none"> <li>• Discuss with medical team</li> <li>• Swab for culture and sensitivity</li> <li>• Good technique when accessing line</li> <li>• Clean site with Chlorhexidine solution (or alternative if patient is allergic) and apply new dressing.</li> <li>• Consider replacement of line</li> </ul>
Catheter migration (PICC lines only)	Occurs if line not adequately secured	<ul style="list-style-type: none"> <li>• Measure length of line from insertion site to anchorage point.</li> <li>• If staff suspect the line might have migrated they must contact the Radiology line placer nurses.</li> <li>• The line must <b>NOT</b> be pushed back into the vein; it will increase the risk of infection.</li> </ul>
Exposed Darcon cuff of tunnelled line (Hickman lines only)	Dislodgement of line	<ul style="list-style-type: none"> <li>• Contact radiology nurses to check position of line, line may need to be removed as high risk of contamination and infection.</li> </ul>



**APPENDIX 2 – EQUALITY IMPACT ASSESSMENT - PART 1 INITIAL SCREENING**

<b>Service/Function/Policy/Project/Strategy</b>	<b>CSU/Executive Directorate and Department</b>	<b>Assessor (s)</b>	<b>New or Existing Service or Policy?</b>	<b>Date of Assessment</b>
Central venous access devices(CVAD) care and management policy PAT/T23 v5	Corporate Nursing. IP&C.	Carol Scholey IP&CP	Existing Service	September 2015
<b>1) Who is responsible for this policy?</b> Name of Care Group/Directorate: Corporate Nursing. IP&C				
<b>2) Describe the purpose of the service / function / policy / project/ strategy?</b> Who is it intended to benefit? What are the intended outcomes? This policy has been updated using the latest national guidance from EPIC 3. It informs staff of the need and use for CVAD lines, care and management.				
<b>3) Are there any associated objectives?</b> Legislation, targets national expectation, standards None				
<b>4) What factors contribute or detract from achieving intended outcomes?</b> Nil				
<b>5) Does the policy have an impact in terms of age, race, disability, gender, gender reassignment, sexual orientation, marriage/civil partnership, maternity/pregnancy and religion/belief?</b> Nil				
<ul style="list-style-type: none"> <li><b>If yes, please describe current or planned activities to address the impact</b> [e.g. Monitoring, consultation]</li> </ul>				
<b>6) Is there any scope for new measures which would promote equality?</b> [any actions to be taken N/A				
<b>7) Are any of the following groups adversely affected by the policy?</b>				
<b>Protected Characteristics</b>	<b>Affected?</b>	<b>Impact</b>		
a) Age	None	Neutral		
b) Disability	None	Neutral		
c) Gender	None	Neutral		
d) Gender Reassignment	None	Neutral		
e) Marriage/Civil Partnership	None	Neutral		
f) Maternity/Pregnancy	None	Neutral		
g) Race	None	Neutral		
h) Religion/Belief	None	Neutral		
i) Sexual Orientation	None	Neutral		
<b>8) Provide the Equality Rating of the service / function /policy / project / strategy – tick (✓) outcome box</b>				
<b>Outcome 1</b> ✓	<b>Outcome 2</b>	<b>Outcome 3</b>	<b>Outcome 4</b>	
<i>*If you have rated the policy as having an outcome of 2, 3 or 4, it is necessary to carry out a detailed assessment and complete a Detailed Equality Analysis form in Appendix 4</i>				
<b>Date for next review: October 2018</b>				
<b>Checked by: Carol Scholey</b>		<b>Date: 3<sup>rd</sup> September 2015</b>		