

**Peripheral & Central Vascular Access Catheters**

**Clinical Procedure Guidelines**

**These guidelines describe best practice in relation to the care & management of peripheral & central vascular access catheters when used on adult patients under the care of LPT and not receiving Parenteral Nutrition.**

|  |  |
| --- | --- |
| Name of Author: | Sue Swanson |
| Name of  responsible  Committee: | Strategic Development group |
| Review date: | December 2018 |
| Expiry date: | December 2020 |
| Target audience: | CHS Community Nurses, MSOP, and Community  Hospital Nurses |

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**Please note that this document must not be changed without the permission of the Author.**

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**CONTRIBUTION LIST**

**Key individuals involved in developing the document**

|  |  |
| --- | --- |
| Name | Designation |
| UHL clinicians | Authors of the original guidelines  (Pre 2006) |
| LPT clinicians | Authors of original guidelines (pre2017)  Clinical Education Leads and Infection  Prevention and Control Lead LCRCHS  (March 2011) |
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|  |  |
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**Version Control and Summary of Changes**

|  |  |  |
| --- | --- | --- |
| Version  number | Date | Comments |
| Original version | 2006 | Adopted by LCRCHS from UHL guidelines |
| Last updated (3) | March 2011 | Inclusion of LCAT plus inclusion of new  policies. Changes to strengthen infection prevention and control with ANTT |
| Version 4 | Commenced  June 2015 | Updated onto new template, Updated reference list, Updated allied policies. Inclusion of Port-a- Cath, PICC and weekly / monthly maintenance regimens for lines. |
| Version 5 | Commenced December 2018 | Updated reference list and allied policies. Changes to guidelines to align with UHL care plans and procedures |
| Version 6 | Oct 2019 | Updated to include new SecurAcath stabilisation device for PICC lines in line with UHL care plans and procedures |

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**Equality Statement**

Leicestershire Partnership NHS Trust (LPT) aims to design and implement clinical guidelines and policy documents that meet the diverse needs of our service, population and workforce, ensuring that none are placed at a disadvantage over others.

It takes into account the provisions of the Equality Act 2010 and promotes equal opportunities for all.

This document has been assessed to ensure that no one receives less favourable treatment on the protected characteristics of their age, disability, sex (gender), gender reassignment, sexual orientation, marriage and civil partnership, race, religion or belief, pregnancy and maternity.

In carrying out its functions, LPT must have due regard to the different needs of different protected equality groups in their area

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This applies to all the activities for which LPT is responsible, including policy development and review.

**Due Regard**

The Trusts commitment to equality means that this document has been screened in relation to paying due regard to the Public Sector Equality Duty as set out in the Equality Act 2010 to eliminate unlawful discrimination, harassment, victimisation; advance equality of opportunity and foster good relations.

A due regard review found the activity outlined in the document to be equality neutral because the treatment of symptoms is a measure that does not impact on any protected characteristics**.**

**The NHS Constitution**

**The NHS will provide a universal service for all based on clinical need, not ability to pay. The NHS will provide a comprehensive range of services**

**The following core principles apply to this document.**

|  |  |
| --- | --- |
| **Shape its services around the needs and preferences of individual patients, their families and their carers** |  |
| **Respond to different needs of different sectors of the population** | ☐ |
| **Work continuously to improve quality services and to minimise errors** |  |
| **Support and value its staff** |  |
| **Work together with others to ensure a seamless service for patients** |  |
| **Help keep people healthy and work to reduce health inequalities** | ☐ |
| **Respect the confidentiality of individual patients and provide open access to information about services, treatment and performance** | ☐ |

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**Definitions that apply to these guidelines**

|  |  |
| --- | --- |
| **Aseptic Non-touch**  **Technique** | Mechanisms employed to reduce potential contamination. |
| **Bionector™** | The 7 Day/100 Access, Closed, Needle-Free, IV Access System employed within LPT to close and access venous catheters and cannula. |
| **CVAD** | Central venous access device which includes PICC lines, Hickman lines, Port-A-Caths & Midlines |
| **Extravasation** | Inadvertent infiltration of vesicant solution or medication into surrounding tissue; rated by a standard scale. |
| **Hickman Line (Skin tunnelled catheter)** | A Central Vascular access device whose proximal end is  tunnelled subcutaneously from the insertion site and brought out through the skin at an exit site. Its tip is positioned in the lower third of the superior vena cava. |
| **IV Infusion** | Intravenous infusion |
| **LPT** | Leicestershire Partnership NHS Trust |
| **PICC Line** | A Peripherally Inserted Central Catheter. |
| **Port-a–Cath / (Totally**  **Implanted Vascular**  **Access Device)** | A catheter surgically placed into a vessel or body cavity and attached to a reservoir located under the skin. |
| **UHL** | University Hospitals of Leicester NHS Trust |

**1.0. Purpose of the document**

* 1. The primary purpose of this document is to provide clinical guidance on the

care & management of peripheral & central vascular access devices (CVADs) in the community and community hospitals **(Appendix 1)**.The individual care plans and procedures for each particular CVAD to be used within LPT can be found in **(Appendix 2)** of this document. There is also guidance on the removal of a PICC line **(Appendix 3**) and an algorithm for dealing with a blocked CVAD (**Appendix 4)**

* 1. Promote procedural uniformity amongst practitioners when using managing CVADs
  2. Clarify roles and responsibilities of clinicians and managers
  3. Provide information to support staff in a safe and consistent manner in

accordance with current legislation, national and local guidance and professional

standards.

* 1. Adherence to the document and the clinical guidelines will ensure that LPT meet

the fundamental standards held within section 7 of the document.

* 1. This information contained within this document has been adapted from the

University Hospitals of Leicester (UHL) vascular access policy and should be used

only for patients under the care of UHL. If a patient is being cared for by a different

Acute trust, nursing staff should contact the appropriate trust for further specific

guidance.

**2.0. Summary and Key Points**

2.1 The document is an updated version of an existing document and applies to all types of peripheral & central vascular access devices, irrespective of indications and use.

2.2 The document is in line with that of UHL in order to provide standardisation of care across the two organisations facilitating continuity in patient care. The care plans for PICC, Hickman, Midline and Port-A-Cath **(Appendix 2)** reflect this standardisation .A patient information leaflet is available **(Appendix 6)**

**3.0. Introduction**

3.1 Management of patients who have CVADs is seen an advanced clinical skill. This requires clinicians to adhere to strict clinical guidance in order to mitigate against the primary risk of infection. **(Appendix 1)**

3.2 The higher risks associated with the management of CVADs requires LPT to ensure it has training, education and support in place for clinicians. This document incorporates best practice clinical guidance reflecting the evidence base held within the care plans and procedures embedded in the Appendix 2

**4.0 Duties within the Organisation**

4.1 **The Trust Board** has a legal responsibility for Trust policies and for ensuring that they are carried out effectively.

4.2 **Trust Board Sub-committees** have the responsibility for ratifying policies and protocols.

4.3 **Service Directors and Heads of Service** are responsible for:

Ensuring that there are clear policies and protocols that give authority for individuals to perform the tasks and that this is reflected in their job descriptions.

4.4 **Managers and Team leaders** are responsible for:

 Ensuring that there is a clear process for dissemination of this document.

 Ensuring that there is a process in place to allow staff to be released to

meet training needs.

 To ensure that the line manager(s) are clear in their roles and

responsibilities in implementing the clinical guidance.

 To ensure that staff have access to the correct equipment to manage

CVADs safely. A list of consumables is available **(Appendix 5)**

4.5 **Line managers** are responsible for

• Ensuring that all staff work in line with this clinical guidance.

• Ensuring that staff evidence their competencies annually as part of the

appraisal process.

• Ensuring that staff who are unable to pass their competency are managed in

line with the organisations performance management policy.

• Ensure that staff act in accordance with the organisational policy on the reporting

of incidents.

4.6 **Staff undertaking the management of CVADs:**

• Registered nurses are responsible and accountable for their practice and should always work within their competence in accordance with The Code (NMC, 2018) and adhere to the Standards for Medicines management (NMC, 2010)

• Registered nurses must maintain their clinical skills within this area and must refresh their knowledge and skills by attending training as required (book via ULearn)

• Registered nurses must access information from the IV monographs [http://medusa.wales.nhs.uk](http://medusa.wales.nhs.uk/) / BNF as required.

• Registered nurses must be familiar with and demonstrate a working knowledge of this and allied policies and procedures.

• Registered nurses must be adequately prepared and equipped to deal with an anaphylactic or untoward reaction.

• In community hospitals two registered healthcare practitioners should check drugs and flushes to be given intravenously before administration in accordance with the Trusts Medicines Management Policy.

• In the community where Registered nurses are administering a drug or flush in the patients home and have demonstrated the necessary knowledge and competence they may administer drugs without a second checker.

**5.0 Training and Competence**

5.1 There is a need for training identified within this document. In accordance with the classification of training outlined in the Trust Learning and Development Strategy this training has been identified as role specific (Page 15)

5.2 The Ulearn system descriptors identify who the training applies to, delivery method, the update frequency, learning outcomes and a list of available training dates

5.3 A record of the staff training will be recorded on the Ulearn system.

5.4 **Before accessing a CVAD independently all staff must:**

• Have completed the organisation’s competency based training and

assessment programme to include the following topics Intravenous Therapy,

management of CVADs, Medicines Management, Anaphylaxis and Adult Basic Life

support.

• Have commenced a period of supervised practice managing Peripheral &

Central Venous Access Devices (CVADs) within 4 months of

attending the training. It should be noted that clinicians may need to create

opportunities for themselves to do this by working with different teams or wards

• Provide evidence of assessment and competency signed off by an LCAT

assessor or other evidence of competency if trained outside of UHL or LPT

• Be in date with infection prevention and control training requirements.

• Observation, supervised practice and assessment should ideally be carried out

in the clinical area in which the practitioner normally works. Assessment using a

simulation dummy is possible - contact the Clinical Education Team

• The practitioner must keep a record of competency in their professional portfolio

as well, as having a copy lodged in their personal file held by the line manager.

**6.0 Monitoring Compliance and Effectiveness**

6.1 This care given by clinicians in relation to the procedures within this document will

be monitored by the Divisional Patient Safety Group on a monthly basis by means

of a review of incidents and complaints of those cases where it is demonstrated

that management of a CVAD has been an issue. Data will initially be collated by the

safeguard system which will be discussed at Divisional Patient safety Group

meetings and then reported by exception to the Clinical Effectiveness Group.

6.2 Findings and learning from the incidents and complaints will be shared across LPT

services by members of the Clinical Effectiveness Group by distribution to senior

nurses and then through operational leads to relevant staff groups.

**7.0 Standards / Performance Indicators.**

|  |  |
| --- | --- |
| **TARGET/STANDARDS** | **KEY PERFORMANCE INDICATOR** |
| CQC – Fundamental Standard 9  Patient Centred Care | Evidenced by ensuring work is correctly delegated and monitored with changes to care delivery made as necessary. |
| CQC – Fundamental Standard 11  Consent | Evidenced within guidelines that staff must gain informed consent in line with Consent to Examination or Treatment Policy LPT |
| CQC – Fundamental Standard 12  Safe Care and Treatment | Evidenced by this document making reference to the use of Aseptic Non Touch Techniques to reduce the risk of infection.  Evidenced by the requirement for in house training and proof of competence in the use of CVADs. |

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**8. References and Bibliography**

Dougherty. L, Lister. S, (eds) (2015) *The Royal Marsden Manual of Clinical Nursing*

*Procedures 9th Edition*. London: Blackwell Science

Jackson, D. (2001) Infection Control Principles and Practices in the Care and Management of VADS: alternate care settings. Journal of Intravenous Nursing 24 (supp 3) p 28-30

LPT (2014) Administration of Intravenous Medication Policy and Procedure

LPT (2017) Anaphylaxis Policy

LPT (2018) Aseptic Non-Touch Technique and Clean Technique Policy

LPT (2018) Consent to Examination or Treatment Policy.

LPT (2016) Hand Hygiene Policy (including bare below the elbows)

LPT (2018) Medicines Management Policy

LPT (2018) Venepuncture Policy

McKinley, R.K., Beach, J., Gray, T., Schuwirth, L., Alun-Jones, T., Miller, H.,(2008).

*Development of a tool to support holistic generic assessment of clinical procedure skills*. Medical Education 42, 619e627.

NICE (2012) CG139. Infection: Prevention and Control of Healthcare Associated Infection

in Primary and Community Care. [https://www.nice.org.uk/guidance/cg139/chapter/guidance accessed 16.08.201](https://www.nice.org.uk/guidance/cg139/chapter/guidance%20accessed%2010.07.2015)8

NMC (2010) *Standards for Medicines Management.* London: Nursing & Midwifery Council

NMC (2018) The Code. Standards of Conduct, performance and ethics for nurses, nursing associates and midwives. London. Nursing &Midwifery Council

Patient Safety First

<http://www.patientsafetyfirst.nhs.uk/ashx/Asset.ashx?path=/Intervention-support/Reducing-> harm-in-critical-care-Prevent-central-line-infections.pdf Accessed 16.08.2018

Pratt, R.J, Pellowe, C.M, Wilson, J.A, Loveday, H.P, Harper, P.J, Jones, S.R.L.J, McDougall. C, Wilcox, M.H.(2007) *Epic 2: National Evidence Based Guidelines for Preventing Healthcare – Associated Infections in NHS Hospitals in England.* Journal of Hospital Infection 65S S1-S64

RCN (2016) *Standards for Infusion Therapy*. Royal College of Nursing,

London

4th Edition

UHL (2017) *Vascular Access in Adults & Children*. *Policy & Procedures*

University Hospital of Leicester. April 2017

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**9. Appendices**

|  |  |  |
| --- | --- | --- |
| Principles & Guidance for Managing CVADs | Appendix 1 |  |
| Care Plans | Appendix 2 |  |
| Removal of a PICC | Appendix 3 |  |
| Blocked CVAD Algorithm | Appendix 4 |  |
| Consumables Order Codes | Appendix 5 |  |
| Patient Information Leaflet | Appendix 6 |  |

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**Due Regard Screening Template**

**Section 1**

**Name of activity/proposal** Care and Management of a Central Venous

Access Device

**Date Screening commenced 22.8.2018**

**Directorate / Service carrying out the assessment**

**Name and role of person undertaking this Due Regard (Equality Analysis)**

CCHS

**Sue Swanson**

**Clinical Education Lead CHS**

**Give an overview of the aims, objectives and purpose of the proposal:**

**AIMS:** Updating of the clinical guidelines that prescribes the standards for managing a Central Venous Access Device (Central Line) within LPT when the patient is also under the care of UHL.

**OBJECTIVES:** To ensure that any staff who manage central lines are able to do so safely

and in a standardised manner.

**Section 2**

**Protected Characteristic If the proposal/s have a positive or negative impact**

**please give brief details**

Age No impact Disability No impact Gender reassignment No impact Marriage & Civil Partnership No impact Pregnancy & Maternity No impact Race No impact Religion and Belief No impact Sex No impact Sexual Orientation No impact Other equality groups? No impact **Section 3**

**Does this activity propose major changes in terms of scale or significance for LPT? For example, is there a clear indication that, although the proposal is minor it is likely to have a major affect for people from an equality group/s? Please tick appropriate box below.**

Yes No

High risk: Complete a full EIA starting click [here](http://www.leicspart.nhs.uk/Library/MasterDueRegardTemplateOct2013.docx) to proceed to Part B

**Section 4**

Low risk: Go to Section 4. 

**If this proposal is low risk please give evidence or justification for how you reached this decision:**

This intervention is used to treat patients with consent or as a best interest decision when a patient lacks capacity. As an intervention it has no impact on any protected characteristics.

|  |  |  |  |
| --- | --- | --- | --- |
|  | | | |
| **Signed by reviewer/assessor** |  | **Date** |  |
| *Sign off that this proposal is low risk and does not require a full Equality Analysis* | | | |
| **Head of Service Signed** |  | **Date** |  |

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**Training Requirements**

**The purpose of this template is to provide assurance that any training implications have been considered.**

|  |  |
| --- | --- |
| **Training Required** | YES |
| **Training topic:** | Care and Maintenance of Central Venous Access Devices |
| **Type of training:** | Role specific (Registered Nurse) |
| **Division(s) to which the training is applicable:** | Community Health Services |
| **Staff groups who require the training:** | Any Registered nurse who may be required to care for a Central  Venous Access Device as part of their work. |
| **Regularity of Update requirement:** | Not formally unless an incident has occurred or a staff member feels they require an update. |
| **Who is responsible for delivery of this training?** | Clinical Education Team CHS |
| **Have resources been identified?** | Yes |
| **Has a training plan been agreed?** | Yes |
| **Where will completion of this training be recorded?** | ULearn |
| **How is this training going to be monitored?** | As part of the appraisal process and via Ulearn administered by the  Learning and Development Dept. |

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**Monitoring and Compliance Table**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Ref** | **Minimum Requirements** | **Evidence for Self- assessment** | **Process for**  **Monitoring** | **Responsible Individual / Group** | **Frequency of monitoring** |
| 1 | Ensure that staff attend training to deliver the care as described in this document | Sections 5.1, 5.2, 5.3 | Review by team managers of records of training that is  recorded on the Ulearn system. | Community Managers, Ward Managers | Quarterly |
| 2 | Ensure that staff are competent to deliver the care as described in this document | Sections 5.4 | Discussion at  appraisal between the manager and staff  member as part of  review of training | Community Managers, Ward Managers | Annual |
| 3 | Review of incidents and complaints reported on the safeguard system where central lines have been involved. | Sections 6.1, 6.2 | Collection of data via safeguard system. Divisional Patient  Safety to review who will manage and feed  to Clinical  Effectiveness group. | By exception reporting to the Clinical Effectiveness Group | Monthly |

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**Checklist for the Review and Approval of Procedural Document**

To be completed and attached to any document which guides practice when submitted to the appropriate committee for consideration and approval.

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Section being reviewed:** | **Yes/No/ Not**  **applicable** | **Comments** |
| **1.** | **Front Page/Title** |  |  |
|  | Is the title clear and unambiguous? | Yes |  |
|  | Is it clear whether the document is a guideline, policy, protocol or standard? If in doubt it is not a policy. | Yes | Clinical  Procedure  Guidelines |
|  | Is the front sheet the correct version and completed other than adoption date? | Yes |  |
|  | Do the contents page numbers match the page numbering of the body text? | Yes |  |
| **2.** | **Key Points / Changes to the Policy** |  |  |
|  | Is the rationale stated in the Version Control/Summary of Changes table? | Yes |  |
| **3.** | **Development Process** |  |  |
|  | Does the front page include a sentence which summarises the  contents of the policy? | Yes |  |
|  | Is the method described in brief? | NA |  |
|  | Has relevant expertise been used? | Yes | Via a range  of sources including UHL |
|  | Is there evidence of consultation with stakeholders and users?  (with representatives from all relevant protected characteristics) | Yes |  |
|  | Has consideration be given to change any functionality  implications for any and all software systems including clinical systems e.g. Rio | NA |  |
| **4.** | **Content** |  |  |
|  | Is the objective of the document clear? | Yes | Section 1 |
|  | Is the target population clear and unambiguous? | Yes |  |
|  | Are the relevant CQC outcomes identified? | Yes | Fundamental  Standards |
|  | Are the intended outcomes described? | Yes |  |
|  | Are the training requirements clear and unambiguous? | Yes |  |
| **5.** | **Evidence Base** |  |  |
|  | Is the type of evidence to support the document identified explicitly? | Yes |  |
|  | Are key references cited? | Yes |  |

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|  |  |  |  |
| --- | --- | --- | --- |
|  | **Section being reviewed:** | **Yes/No/ Not**  **applicable** | **Comments** |
|  | Is there evidence to show that there has been due regard under the Equality Act 2010, and in working towards the Trust’s equality  objectives? (e.g. attach the equality analysis as summary of evidence) | Yes |  |
|  | Are supporting documents referenced? | Yes |  |
| **6.** | **Dissemination and Implementation** |  |  |
|  | Is there an outline/plan to identify how this will be done? | Yes | Esource and  professional routes and via training |
|  | Does the plan include the necessary training/support to ensure  compliance? | Yes |  |
| **7.** | **Process to Monitor Compliance and Effectiveness** |  |  |
|  | Are there measurable standards or KPIs to support the monitoring of compliance with and effectiveness of the document? | Yes |  |
|  | Is there a plan to review or audit compliance with the document? | Yes | Exception  reporting via safeguard |
| **8.** | **Overall Responsibility for the Document** |  |  |
|  | Is it clear who will be responsible for co-ordinating the  dissemination, implementation and review of the document? | Yes |  |

|  |  |  |  |
| --- | --- | --- | --- |
| **Lead author** | | | |
| Once the checklist is completed prior to submission for review at committee/group sign and date below to confirm.  **Only a completed checklist should accompany a policy document for review at the committee/group giving approval prior to adoption by a Board Committee (FPC or QAC).** | | | |
| Name | Sue Swanson | Date | Jan 2019 |
| Signature | Sue Swanson | | |
| **Committee Approval** | | | |
| If the reviewing committee Chair is satisfied then please sign and date it to that effect below.  The completed checklist and final policy version should then be forwarded to the Corporate Affairs Administration Assistant in the Trust Secretary’s team for logging in the Policy Database, arranging for adoption by the pertinent Board committee, and posting to e-source. | | | |
| Name |  | Date |  |
| Signature |  | | |

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