



# Family Nursing & Home Care

## **Vascular Access Devices Policy & Procedures 03 November 2021**

## Document Profile

<b>Document Registration</b>	Added following ratification
<b>Type</b>	Policy & Procedures
<b>Title</b>	Vascular Access Devices Policy & Procedures
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<b>Category</b>	Clinical
<b>Description</b>	A policy and procedures covering the use and ongoing care of Vascular Access Devices
<b>Approval Route</b>	Organisational Governance Approval Group
<b>Approved by</b>	Rosemarie Finley
<b>Date approved</b>	8 December 2021
<b>Review date</b>	3 years from approval
<b>Document Status</b>	This is a controlled document. Whilst this document may be printed, the electronic version posted on the intranet is the controlled copy. Any printed copies of this document are not controlled. As a controlled document, this document should not be saved onto local or network drives but should always be accessed from the intranet.

### Version control / changes made

Date	Version	Summary of changes made	Author
September 2021	1	This policy combines and replaces previous separate policies for Cannulation and Midline Vascular Access Devices  Content of previous policies reviewed and revised  Reference list revised and updated	Mo de Gruchy
November 2021	1.1	References to Royal Marsden procedures removed and references to ANTT® procedures inserted	Mo de Gruchy

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## **1. INTRODUCTION**

### **1.1 Rationale**

A Vascular Access Device (VAD) is a device that is inserted into either a vein or an artery, via the peripheral or central vessels, to provide for either diagnostic (blood sampling or central venous pressure reading) or therapeutic (administration of medications, fluids and/or blood products) purposes.

Types of VAD include (also see Glossary):

- Peripheral cannula
- Midline catheter
- Peripherally Inserted Central Catheter (PICC)
- Skin-tunnelled catheter

Historically, the insertion practice and ongoing care of VADs has varied significantly, dependent upon the specialty and experience of the practitioner involved in the care.

Variation in the standard of care constitutes a clinical risk and increases the chance of patients suffering complications related to VAD insertion and ongoing care, such as Healthcare Associated Infections (HAIs).

The purpose of this policy is to inform all relevant practitioners of their role and responsibilities to support the standardisation of safe practice relating to insertion and ongoing care of VADs and thereby reduce the incidence of VAD-related infections.

### **1.2 Scope**

This policy applies to all staff involved in the insertion and ongoing care and maintenance of VADs in adult patients. This includes Registered Nurses who have the support of FNHC and their respective managers in the undertaking of this practice. It identifies both the insertion procedures for VADs and the ongoing care management principles that must be adhered to within FNHC.

### **1.3 Role and Responsibilities**

#### **Chief Executive Officer (CEO)**

The CEO is responsible for ensuring that:

- ✓ systems are in place to manage risk associated with insertion and care of VADs
- ✓ resources are made available to support good practice in the above

#### **Operational Leads**

Operational Leads are responsible for:

- ✓ implementing this policy and associated procedures within their areas
- ✓ monitoring compliance with the requirements of this policy

## Team Leads

Team Leads are responsible for ensuring that staff:

- ✓ are suitably trained to carry out the procedures
- ✓ maintain their work competencies to undertake the insertion and care of VADs as appropriate to their role
- ✓ have ready access to the relevant policy, procedures and documentation to support the above, as appropriate to their role

## Individual Staff

It is the duty of all those who insert and manage VADs to understand the risks associated with such devices and be responsible for updating their knowledge and maintaining the highest standard of practice.

## 2. POLICY

### 2.1 Training

Practitioners undertaking the insertion and care of VADs must have received theoretical and practical training covering device-specific insertion, formal education in the principles of device management and have been deemed competent in these skills (RCN 2016).

Where these procedures are an expected part of their role, FNHC staff should access the [HCS Venous Blood Sampling and Intravenous Cannulation Workbook](#), attend a mandatory study day and be assessed as competent in practice. These resources can be used by staff new to these skills and those needing an update.

### 2.2 Infection Prevention and Control

Adherence to best practice in infection prevention and control will underpin clinical practice to reduce the risk of Healthcare Associated Infections (HAIs).

The insertion of a VAD is regarded as a minor surgical procedure and therefore the utmost care and adherence to strict infection prevention and control procedures is paramount. The principles of ANTT® aseptic technique should be adhered to, as per the [ANTT Peripheral Cannulation](#) procedure guidelines in the FNHC ANTT Policy (currently under review).

Thorough hand decontamination is the single most effective method in reducing HAIs and must be practiced prior to the insertion or manipulation of a VAD.

Prior to insertion of VADs the intended site should be decontaminated with an appropriate antimicrobial solution i.e. 2% chlorhexidine in 70% isopropyl alcohol (Chloraprep).

### 3. PROCEDURE

#### 3.1 Peripheral VADs (cannulas)

##### 3.1.1 Insertion, Care and Maintenance

Adherence to the [ANTT Peripheral Cannulation](#) guidelines will be adopted by all practitioners undertaking the procedure of peripheral cannula insertion, adapting as practically required depending on location e.g. a patient's own home.

Indwelling cannulas should be checked and condition documented on a daily basis (see 3.1.2). If there are no signs of phlebitis and the line is patent they can remain in place as long as clinically in use.

Cannulas should be removed/replaced every 72 hours. If a practitioner is unsure as to whether a cannula should be removed, they should discuss with their Team Lead.

##### 3.1.2 Documentation

A PVAD Care Bundle (appendix 1) should be used for any patient with a cannula is likely to be in situ for more than 24 hours. Where a care bundle is not required the documentation of the insertion and removal of the patient's cannula must be recorded in the patient's nursing notes.

Should a patient subsequently require admission as an in-patient, a Care Bundle should be completed retrospectively.

If a patient is discharged from hospital or any other in-patient setting with a cannula in situ then the Care Bundle should follow the patient and be kept in the patient's record.

If however there is no Care Bundle in place, the information should be obtained from the referrer and entered onto part 1 of the FNHC care bundle document indicating that this insertion was undertaken by a different care provider. Part 2 should then commence on the appropriate post-insertion day with a single line scored through the days when care was not provided by FNHC.

The following stages should be followed when utilising the Care Bundle:

**Part 1** of the care bundle must be fully completed following the insertion of the PVAD:

- affix a patient label to the care bundle or complete the patient's demographic details
- complete the clinical area details and practitioner identifier details
- complete Part 1 and sign each metric

**Part 2** must be completed on a daily basis whilst the cannula is in place

**Part 3** must be completed on PVAD removal

File the completed PVAD care bundle in the patient's nursing notes.

## **3.2 Midline catheters**

### **3.2.1 Insertion, Care and Maintenance**

Adherence to the [ANTT Peripheral Cannulation](#) guidelines will be adopted by all practitioners undertaking the procedure of midline catheter insertion, adapting as practically required depending on location e.g. a patient's own home.

#### **3.2.2 Documentation**

All aspects of care from insertion and daily/weekly care to removal should be documented using the Midline VAD Care Bundle (appendix 2).

If a patient is discharged from hospital or any other in-patient setting with a mid-line catheter in situ, the care bundle, if used within that setting, should follow the patient and be kept in the patient's nursing records. The mid-line catheter should be labelled with details of the line type, expiry date, who inserted it and who to contact in the event of any issues.

If however there is no care bundle in place, the information should be obtained from the referrer and entered onto part 1 of the FNHC care bundle document indicating that this insertion was undertaken by a different care provider. Part 2 should then commence on the appropriate post-insertion day with a single line scored through the days when care was not provided by FNHC.

The following stages should be followed when utilising the Care Bundle:

**Part 1** of the care bundle must be fully completed following the insertion of the MLVAD:

- affix a patient label to the care bundle or complete the patient's demographic details
- complete the clinical area details and practitioner identifier details
- complete Part 1 and sign each metric

**Part 2** must be completed on a daily basis – this section is on the back of the care bundle

All aspects of day 7 should also be completed as per the bundle

**Part 3** must be completed on MLVAD removal

File the completed Midline VAD care bundle in the patient's nursing notes.

#### 4. CONSULTATION PROCESS

Name	Title	Date
Judy Foglia	Director of Governance Regulation and Care	07/10/2021
Gilly Glendewar	Clinical Nurse Specialist Tissue Viability	07/10/2021
Fiona Le Ber	Clinical Nurse Specialist Bladder & Bowel	07/10/2021
Louise Hamilton	Team Lead RRRT	07/10/2021
Clare Stewart	Op Lead OOH Services	07/10/2021
Tia Hall	Op Lead Adult Services	07/10/2021
Elsbeth Snowie	Clinical Effectiveness Facilitator	07/10/2021
Justine Bell	Education Lead and Practice Development Nurse	07/10/2021

#### 5. IMPLEMENTATION PLAN

Action	Responsible Person	Planned timeline
Email to all staff	Education and Development Secretary/Administrative Assistant	Within two weeks of ratification
Policy to be placed on Procedural Document Library	Education and Development Secretary/Administrative Assistant	Within two weeks of ratification

#### 6. MONITORING COMPLIANCE

Compliance with this policy and procedures will be monitored through audit of observed practice in the insertion, care and maintenance of VADs.

## 7. EQUALITY IMPACT STATEMENT

Family Nursing & Home Care is committed to ensuring that, as far as is reasonably practicable, the way services are provided to the public and the way staff are treated reflects their individual needs and does not discriminate against individuals or groups on any grounds.

This policy document forms part of a commitment to create a positive culture of respect for all individuals including staff, patients, their families and carers as well as community partners. The intention is to identify, remove or minimise discriminatory practice in the areas of race, disability, gender, sexual orientation, age and 'religion, belief, faith and spirituality' as well as to promote positive practice and value the diversity of all individuals and communities.

The Family Nursing & Home Care values underpin everything done in the name of the organisation. They are manifest in the behaviours employees display. The organisation is committed to promoting a culture founded on these values.

### **Always:**

- ✓ Putting patients first
- ✓ Keeping people safe
- ✓ Have courage and commitment to do the right thing
- ✓ Be accountable, take responsibility and own your actions
- ✓ Listen actively
- ✓ Check for understanding when you communicate
- ✓ Be respectful and treat people with dignity
- ✓ Work as a team

This policy should be read and implemented with the Organisational Values in mind at all times.

## 6. GLOSSARY OF TERMS

**Midline catheter:** a small plastic catheter that is inserted via the antecubital veins and advanced into the veins of the upper arm but not extending past the axilla (usually about 20cm in length). They provide a long term alternative to a central line and are ideal for the purpose of administering longer term medications, fluid and/or blood products, with an indwelling time of up to 4 weeks.

**Peripheral cannula:** a small flexible plastic tube inserted into a small vein for therapeutic purposes such as the short term administration of medications, fluids and/or blood products. The insertion of peripheral intravenous cannulae is one of the most common invasive procedures performed in hospital, and is becoming increasingly more common in the community, offering a means of access to a patient's vascular system.

**Peripherally Inserted Central Catheter (PICC):** a soft, flexible, central venous catheter inserted into an extremity, usually an arm, and advanced until the tip is positioned in the lower third of the superior vena cava

**Skin-tunnelled catheter:** a vascular access device whose proximal end is tunnelled subcutaneously from the insertion site and brought out through the skin at an exit site

## 7. REFERENCES


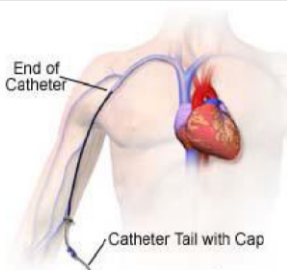
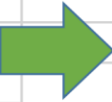




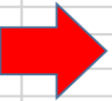
Royal College of Nursing (2016) *Standards for Infusion Therapy 4<sup>th</sup> edition*. Available at [Standards for infusion therapy | Infection prevention and control | Royal College of Nursing \(rcn.org.uk\)](https://www.rcn.org.uk/standards-for-infusion-therapy-infection-prevention-and-control). Last accessed 22<sup>nd</sup> September 2021

## 10. APPENDIX

## Appendix 1 Peripheral Vascular Access Device Care Bundle

Please Complete or Affix Addressograph					
Surname: _____ Forename: _____ Date of Birth: _____ URN: _____		Name / Designation: _____ Signature: _____ Date and Time: _____ Ward / Area: _____			
PERIPHERAL VASCULAR ACCESS DEVICE (PVAD) CARE BUNDLE - ADULT					
PART 1 FOR IN-PATIENT USE ONLY (PVAD's likely to stay in for >24 hours)					
<b>PVAD Sites:</b> Indicate: 1 2 Left: <input type="checkbox"/> <input type="checkbox"/> Right: <input type="checkbox"/> <input type="checkbox"/> Hand: <input type="checkbox"/> <input type="checkbox"/> Forearm: <input type="checkbox"/> <input type="checkbox"/> Foot: <input type="checkbox"/> <input type="checkbox"/> Other: <input type="checkbox"/>				<b>PVAD size:</b> Indicate: 1 2 20G: <input type="checkbox"/> <input type="checkbox"/> (Yellow) - Patch 22G: <input type="checkbox"/> <input type="checkbox"/> (Blue) 24G: <input type="checkbox"/> <input type="checkbox"/> (Pink) 26G: <input type="checkbox"/> <input type="checkbox"/> (Green) 28G: <input type="checkbox"/> <input type="checkbox"/> (Grey) 30G: <input type="checkbox"/> <input type="checkbox"/> (Orange)	
PVAD Insertion - safety		Tick box on completion		Signature	
Cannula sited by ambulance personnel? YES <input type="checkbox"/> NO <input type="checkbox"/>		PVAD 1		PVAD 2	
2% Chlorhexidine / 70 % Isopropyl alcohol used for skin preparation					
Aseptic technique practiced					
Semi-permeable dressing applied with date documented on it					
Peripheral line flushed to ensure patency					
Transferred to ward 1:-		Transferred to ward 2:-			
Ensure Hand Hygiene prior to accessing device. Clean hub for at least 15 seconds with 2% Chlorhexidine wipe					
PART 2 OBSERVATIONS OF PVAD - DAILY CHECKS					
Date:	Required?	Dressing	V.I.P. score	Flush	Action
PVAD 1					Signature
PVAD 2					
Date:	Required?	Dressing	V.I.P. score	Flush	Action
PVAD 1					Signature
PVAD 2					
Date:	Required?	Dressing	V.I.P. score	Flush	Action
PVAD 1					Signature
PVAD 2					
Date:	Required?	Dressing	V.I.P. score	Flush	Action
PVAD 1					Signature
PVAD 2					
<b>V.I.P. Score</b> (Visual Infusion Phlebitis Score)					
I.V. site appears healthy		<b>0</b>	No signs of phlebitis <input type="checkbox"/> OBSERVE CANNULA		
ONE of the following are evident: • Slight pain near I.V. site or slight redness near I.V. site		<b>1</b>	Possible first signs of phlebitis <input type="checkbox"/> OBSERVE CANNULA		
TWO of the following are evident: • Pain near I.V. site • Erythema • Swelling		<b>2</b>	Early stage of phlebitis <input type="checkbox"/> RESITE CANNULA		
ALL of the following are evident: • Pain along path of cannula • Erythema • Induration		<b>3</b>	Medium stage of phlebitis <input type="checkbox"/> RESITE CANNULA <input type="checkbox"/> CONSIDER TREATMENT		
ALL of the following are evident: • Pain along path of cannula • Erythema • Induration • Palpable venous cord		<b>4</b>	Advanced stage of phlebitis or start of thrombophlebitis <input type="checkbox"/> RESITE CANNULA <input type="checkbox"/> CONSIDER TREATMENT		
ALL of the following are evident: • Pain along path of cannula • Erythema • Induration • Palpable venous cord • Pyrexia		<b>5</b>	Advanced stage of thrombophlebitis <input type="checkbox"/> INITIATE TREATMENT <input type="checkbox"/> RESITE CANNULA		
PART 3 PVAD Removal - Remove if V.I.P. score 2 or above or is no longer needed					
PVAD 1		Date:		Removed by:	
PVAD 2		Date:		Removed by:	
© H&SB GB, PLS & GW* Adapted from the North West London Hospitals					
Reference Number Here					

## Appendix 2 Midline Vascular Access Device Care Bundle

Please complete or affix addressograph			
Surname		<div style="border: 2px solid magenta; border-radius: 50%; padding: 10px; display: inline-block;">             Mid-Line care bundle           </div>	 <b>Family Nursing &amp; Home Care</b>
Forename			
Address			
Date of birth			
URN No		Name/Designation	.....
		Signature	.....
		Date/Time	.....
		Team	.....
<b>Mid-line vascular access device (MLVAD) care bundle - adults</b>			
<b>Part 1 MID-LINE INSERTION</b>		<b>Tick</b>	<b>Signature</b>
Hands decontaminated			
2% Chlorhexidine / 70% Isopropyl alcohol 1.5ml used for skin prep (Chloraprep)			
Aseptic technique practiced			
Device secured and clear view dressing applied			
Line flushed with 0.9% Sodium chloride to ensure patency			
		<b>Tick</b>	<b>Signature</b>
Draw on the diagram where the insertion point is and where the Mid-line ends			
		<b>Document points below</b>	
Length of catheter			
Gauge of catheter			
Brand of catheter			
Catheter Lot Number			
Local anaesthetic used	YES / NO		
Number of insertion attempts			
Insertion complications?			
<b>Part 2 on back of sheet</b>			
<b>V.I.P. Score (Visual infusion phlebitis score)</b>			
	Score		
<b>I.V. Site appears healthy</b>	<b>0</b> 	<b>No sign of phlebitis OBSERVE CANNULA</b>	
<b>One of the following is evident: Slight pain near the i.v. site or slight redness near the i.v. site</b>	<b>1</b> 	<b>Possible first sign of phlebitis OBSERVE CANNULA</b>	
<b>Two of the following are evident: • Pain near i.v. site • Erythema • Swelling</b>	<b>2</b> 	<b>Early stage of phlebitis RESITE CANNULA</b>	
<b>All of the following are evident: • Pain along path of cannula • Erythema • Induration</b>	<b>3</b> 	<b>Medium stage of phlebitis RESITE CANNULA + CONSIDER TREATMENT</b>	
<b>All of the following are evident: • Pain along path of cannula • Erythema • Induration • Palpable venous cord</b>	<b>4</b> 	<b>Advanced stage of phlebitis or start of thrombophlebitis RESITE CANNULA + CONSIDER TREATMENT</b>	
<b>All of the following are evident &amp; extensive • Pain along path of cannula • Erythema • Induration • Palpable venous cord • Pyrexia</b>	<b>5</b> 	<b>Advanced stage of thrombophlebitis INITIATE TREATMENT + RESITE CANNULA</b>	
<b>Part 3 MLVAD Removal - Remove if V.I.P. score 2 or above or is no longer needed</b>			
MLVAD	Date:	Removed by:	

<b>Part 2 Observations of MLVAD - Daily checks</b>							
Ensure hand hygiene prior to accessing device. Clean hub for at least 15 seconds with Clinel wipe							
Date Day 1:	Required?	Dressing	Insertion VIP Score	End VIP Score	Flush	Action	Signature
MLVAD							
24 hour post insertion dressing check - change if not clean and intact							
Date Day 2:	Required?	Dressing	Insertion VIP Score	End VIP Score	Flush	Action	Signature
MLVAD							
Date Day 3:	Required?	Dressing	Insertion VIP Score	End VIP Score	Flush	Action	Signature
MLVAD							
Date Day 4:	Required?	Dressing	Insertion VIP Score	End VIP Score	Flush	Action	Signature
MLVAD							
Date Day 5:	Required?	Dressing	Insertion VIP Score	End VIP Score	Flush	Action	Signature
MLVAD							
Date Day 6:	Required?	Dressing	Insertion VIP Score	End VIP Score	Flush	Action	Signature
MLVAD							
<b>Day 7</b>							
Date:	Required?	Dressing	Insertion VIP Score	End VIP Score	Flush	Action	Signature
MLVAD							
Change Griplock securing device if used							
On changing cleanse insertion site with CloraPrep and allow to dry							
Change Clear View dressing							
Change needle free access device (connector bung)							
Date Day 8:	Required?	Dressing	Insertion VIP Score	End VIP Score	Flush	Action	Signature
MLVAD							
Date Day 9:	Required?	Dressing	Insertion VIP Score	End VIP Score	Flush	Action	Signature
MLVAD							
Date Day 10:	Required?	Dressing	Insertion VIP Score	End VIP Score	Flush	Action	Signature
MLVAD							
Date Day 11:	Required?	Dressing	Insertion VIP Score	End VIP Score	Flush	Action	Signature
MLVAD							
Date Day 12:	Required?	Dressing	Insertion VIP Score	End VIP Score	Flush	Action	Signature
MLVAD							
Date Day 13:	Required?	Dressing	Insertion VIP Score	End VIP Score	Flush	Action	Signature
MLVAD							
<b>Day 14</b>							
Date Day 14:	Required?	Dressing	Insertion VIP Score	End VIP Score	Flush	Action	Signature
MLVAD							
Change Griplock securing device if used							
On changing, cleanse insertion site with ChlorPrep and allow to dry							
Change Clear View dressing							
Change needle free access device (connector bung)							
<b>Ensure Griplock device / Clear View dressing / needle free access device changed every 7 days</b>							

### Appendix 3 Equality Impact Screening Tool

#### Stage 1 - Screening

Title of Procedural Document: Vascular Access Devices Policy

Date of Assessment	October 2021	Responsible Department	Governance
Name of person completing assessment	Mo de Gruchy	Job Title	Quality, Performance and Development Nurse

**Does the policy/function affect one group less or more favourably than another on the basis of :**

	Yes/No	Comments
• Age	No	
• Disability Learning disability; physical disability; sensory impairment and/or mental health problems e.g. dementia	No	
• Ethnic Origin (including hard to reach groups)	No	
• Gender reassignment	No	
• Pregnancy or Maternity	No	
• Race	No	
• Sex	No	
• Religion and Belief	No	
• Sexual Orientation	No	
<b>If the answer to all of the above questions is NO, the EIA is complete. If YES, a full impact assessment is required: go on to stage 2, page 2</b>	No	

#### Stage 2 – Full Impact Assessment

What is the impact	Level of Impact	Mitigating Actions (what needs to be done to minimise / remove the impact)	Responsible Officer

#### Monitoring of Actions

The monitoring of actions to mitigate any impact will be undertaken at the appropriate level