Ashford and St. Peter's Hospitals NHS
NHS Foundation Trust

Peripheral Venous Catheter Care Policy in Paediatrics

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History

Issue	Date Issued	Brief Summary of Change	Approved by
1	Feb 2026	New Policy	Paediatric guidelines group
2			

For more information on the status of this document, please contact:	
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Executive summary

Policy for the care of Peripheral Venous Catheters in Paediatrics

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See also: **ANTT Policy**
Extravasation management in Paediatrics
Injectable medicines administration Policy
IV fluid Guidelines for children aged 0-17 years

1. Introduction

Peripheral venous cannula (PVCs) are a common invasive device used in paediatric care. They provide essential access for fluid therapy, medication administration and blood products.

As an invasive device, PVC's can be a route of infection. Appropriate measures such as ANTT must be used during insertion use, and ongoing care to prevent a PVC related infection from occurring (NICE 2014).

Children are at increased risk of complications compared with adults due to:
- Smaller, more fragile veins which may be more prone to infiltration and extravasation.
- Use of less recommended sites, due to difficult access.
- Covering of sites, to protect device.
- Reduced ability to communicate discomfort, especially in infants and non-verbal children.
- Greater risk of tissue injury from irritant or vesicant infusions, which can cause long-term morbidity if extravasation occurs.

Extravasation injuries are recognised as a major harm event in paediatrics and can lead to necrosis, compartment syndrome, and permanent functional or cosmetic damage. Vigilant cannula care and monitoring are therefore critical to patient safety.

The National Infusion and Vascular Access Society (NIVAS 2021) emphasises:
- Rigorous site monitoring.
- Early recognition of complications.
- Vascular access and care training.

2. Scope

This policy applies to all Nursing staff involved in the care of PVCs in patients aged 0–18 years in Paediatric clinical areas within the Trust.

3. Purpose

To provide clear standards for the monitoring, care, use and removal of PVCs in paediatric patients.

This policy ensures consistent, evidence-based care of PVCs across Paediatrics to minimise risks and optimise outcomes.

4. Explanation of Terms Used

ANTT	**Aseptic Non-Touch Technique**
EPR	**Electronic patient record**
Extravasation	**Leakage of a vesicant or irritant fluid or medication from a vein into surrounding tissue, potentially causing serious tissue damage.**
Infiltration	**Leakage of non-vesicant fluid into surrounding tissue from a PVC.**
IPC	**Infection Prevention and Control**
IV	**Intravenous**
PVC	**Peripheral Venous Catheter**
VIP Score	**Visual Infusion Phlebitis Score**
ASPH	**Ashford & St Peters NHS Foundation Trust**

5. Duties and responsibilities

All Nursing staff: Must comply with this policy and maintain competence.

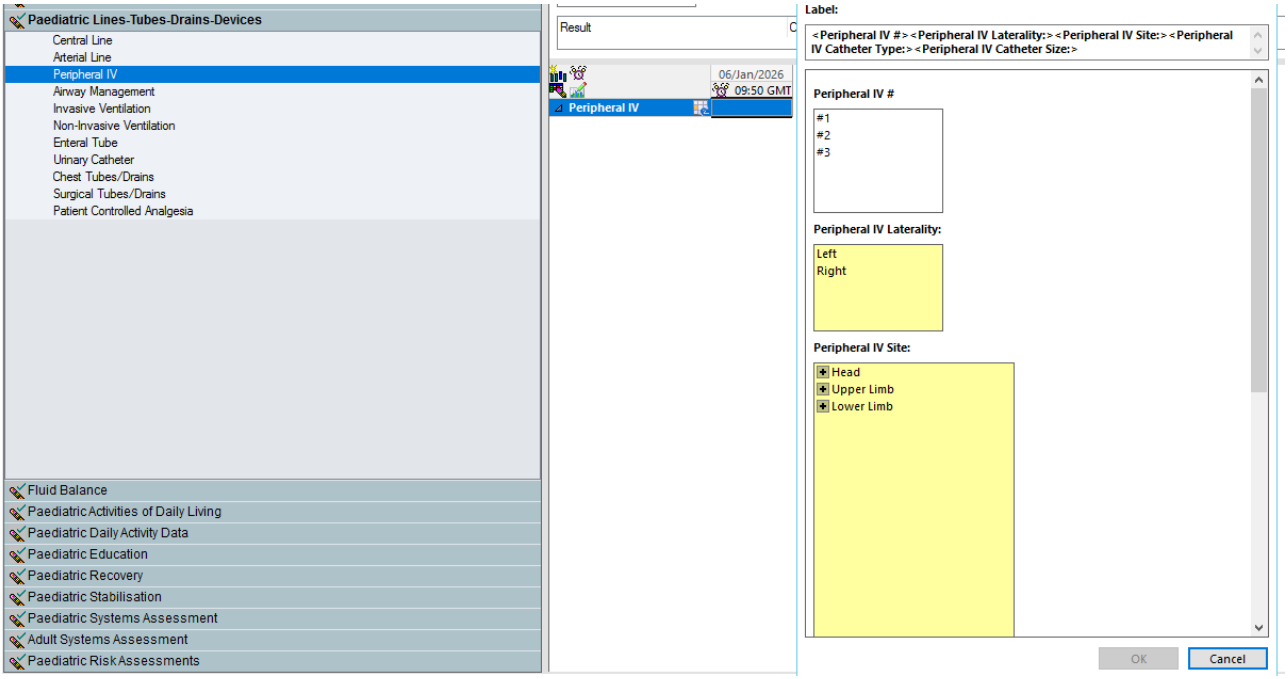
Ward/department managers: Ensure training, compliance, and audits are up to date.

Education team: Are responsible for ongoing training and competence.

6. Policy

6.1 Insertion

- All PVC insertions should be documented in the Patients EPR, under Lines tubes and drains
- If not documented this should be highlighted to the responsible clinician to complete, if Clinician is not known, the PVC should be documented as “present on admission”.
- Documentation should include date, time, site, PVC size, and inserter



6.2 Securing and Dressing

- PVC’s should be secured with a sterile transparent dressing, with the insertion site clearly visible. Tape, such as Elastoplast, should not be used, as this risks obscuring the site. See below picture:

McCann, B. (2003)

- A cradle may be used to help prevent movement at the site and preserve the PVC. This should be of an appropriate size for the child.
- Any extension sets used should be primed with 0.9%NaCl before connection. Care should be taken during securing that extension sets do not cause pressure to the surrounding area.
- In Paediatrics it is common to bandage over the PVC. **If this is done a window to the insertion site should be left to allow easy inspection.** Where a bandage is used, a minimal amount of bandage possible should be used. *See Appendix 1*.
- Bandage and dressing should be changed if wet or visibly soiled.

6.3 PVC Access & Monitoring

- **ANTT** must be used for all PVC care and access, as per Trust ANTT Policy. Nursing staff must complete and update ANTT competency in line with current Trust policy.
- Lines should be flushed before and after use with 0.9%NaCl, using a push/pause technique, to assess and maintain patency.

- **VIP score** must be recorded at every access and hourly if an infusion running. This requires visualisation of the insertion site and any bandage or dressing obscuring view must be taken down/removed. *See Appendix 2.*
- If the PVC is not in use, VIP score must be recorded at least once per shift, although consider removing this device if not used for 12 hours.
- Within Paediatrics, infusions are given with an infusion pump (Volumetric or syringe).
- **Pressure alarm limits** should be set at the start of an infusion, as an increase in pressure may indicate occlusion or extravasation. It is important not to rely on this alone and continue site vigilance.
- Despite research there is no nationally agreed limit, however consensus suggests starting with a low limit and increase cautiously. NIVAS (2024) recognise that this will vary depending on the situation.
- Within Paediatrics at ASPH, infusions via a PVC with a pump have been set with an initial limit of **30mmHg**. Review of Datix incidence does not show a need to lower or increase this limit. **All staff must start infusions via a PVC with an initial pressure limit of 30mmHg.**
- **Pump Pressures** should be documented hourly during infusions, along with VIP score in the EPR. Staff should document this in the VIP and pump pressure chart.
- Any increase in pump pressure should be investigated, to rule out occlusion or infiltration/extravasation, by inspecting the pump, giving set and insertion and local site, seeking review by senior colleague if needed.
- Pumps should not be restarted after alarming without inspection of the insertion site.
- Inspection of the surrounding skin should also occur, to ensure no pressure areas are developing from extension sets, bungs or IV cradles.
- Increases in pump pressure should be documented, with comment. Staff should be aware that movement, agitation, dystonia, kinks in or pressure on lines, the rate of an infusion, may all affect the pump pressure.
- Patients/family should be educated in the care of the PVC and empowered to observe for and escalate concerns, where appropriate.

6.4 Removal

- **Remove** PVC when no longer required.
- Use ANTT, apply pressure and inspect catheter tip and site.
- Document removal in EPR, under lines tubes and drains.

6.5 Complications & Escalation

- Re-siting should be considered if VIP score 1. If VIP score greater than 1, PVC will need re-siting. Ensure early escalation to minimise delay to treatment.
- Follow VIP score chart to determine if further treatment it needed.
- Any suspicion of PVC related infection must be treated and escalated to the IPC team and Datix completed.
- Any suspicion of Infiltration/Extravasation, must be escalated immediately and treated as an emergency, following the **Paediatric Extravasation Policy**.
- All complications must be documented, Duty of Candor followed and a Datix completed at the time, or as soon after as possible.

7 Training

All nursing staff managing paediatric PVCs must complete:

- IV study day and competency.
- ANTT competency.
- Maintain current clinical competence

8 Supporting References / Evidence Base

McCann, B. (2003) *Securing peripheral cannulae: evaluation of a new dressing*. Beth McCann RN (Child), ENB998, IV Specialist, Great Ormond Street Hospital

NHS Resolution. (2023) *Did you know? Extravasation.* May. Available at: https://resolution.nhs.uk/wp-content/uploads/2023/05/Did-You-Know-Extravasation.pdf

National Institute for Health and Care Excellence (2014). *Quality Statement 5: Vascular Access Devices | Infection Prevention and Control | Quality Standards | NICE*. [online] www.nice.org.uk. Available at: https://www.nice.org.uk/guidance/qs61/chapter/Quality-statement-5-Vascular-access-devices.

National Infusion and Vascular Access Society (NIVAS). (2024) *Infiltration and Extravasation: A toolkit to improve practice. Version 1 February 2024*. Available at: https://vascular-access.files.svdcdn.com/production/images/NIVAS-Infiltration-and-Extravasation-toolkit-version-1-Feb-2024b.pdf?dm=1734439180

APPENDIX 1

Bandaging Guidance for Paediatric PVCs

1. **Principles**

- The insertion site must always be visible for early recognition of complications.
- Bandaging may be required for security, comfort, or protection.
- Bandaging must not compromise site monitoring or limb circulation.

2. **Acceptable Practice (Do's)**

- Transparent, semi-permeable dressing directly over insertion site.
- Light, single-layer tubular bandage or gauze if extra protection needed.
- Leave a window or gap for visual inspection if possible.
- Remove/slide back any bandage over insertion site for direct inspection when completing VIP score or inspecting site due to pump alarms.
- Ensure bandage is loose enough to preserve distal circulation.
- Document application and inspection in notes.

3. **Unacceptable Practice (Don'ts)**

- No tight crepe or elasticated bandages.
- No non-sterile adhesive tape directly over site.
- No leaving protective bandage in place without inspection.

4. **Documentation**

- Document hourly VIP score and pump pressure at every access and hourly during infusion, by observing insertion site.

5. **Escalation**

- If the insertion site cannot be inspected due to the way the PVC has been secured, escalate to nurse in charge/medical team.
- Remove bandage immediately if extravasation suspected and follow Trust Extravasation Policy.

APPENDIX 2

VIP Score

VIP score is recorded following the same route as in the *Peripheral venous catheter care policy for adults, ASPH. Dec 2023*:

Table 1 Visual Infusion Phlebitis Score tool for Vascular Access Devices

Visual Infusion Phlebitis Score		
IV site appears healthy	0	No signs of phlebitis **OBSERVE CANNULA**
One of the following is evident: • Slight pain at IV site • Redness near IV site	1	Possible first sign of phlebitis **OBSERVE CANNULA**
Two of the following are evident: • Pain • Erythema • Swelling	2	Early stage of phlebitis **RESITE THE CANNULA**
All of the following signs are evident: • Pain along the path of the cannula • Erythema • Induration	3	Medium stage of phlebitis **RESITE THE CANNULA** **CONSIDER TREATMENT**
All of the following signs evident and extensive: • Pain along the path of the cannula • Erythema • Induration • Palpable venous cord	4	Advanced stage of phlebitis or start of thrombophlebitis **RESITE THE CANNULA** **CONSIDER TREATMENT**
All of the following signs are evident and extensive: • Pain along the path of the cannula • Erythema • Induration • Palpable venous cord • Pyrexia © Andrew Jackson 1997 Rotherham General Hospitals NHS Trust	5	Advanced stage of thrombophlebitis **INITIATE TREATMENT** **RESITE THE CANNULA**

VIP from A Jackson, 1997, Specialist Nurse, IV Therapy and Care, Rotherham General Hospitals

APPENDIX 3

Equality Impact Assessment

1. What is the project, who is leading on it and what is its purpose?

2. Who will be impacted by this?

3. Checklist

Questions	Yes	No
Is there any indication or evidence (including from consultation with relevant groups) that different groups with regards to protected characteristics have different needs, experiences, issues and priorities in relation to the proposed policy or proposal?	☐	☐
Is there potential for or evidence that the proposed policy or proposal will affect different geographical population groups differently (including possibly discriminating against certain groups)?	☐	☐
Have there been or are there likely to be any public concerns (including media, academic, voluntary or sector specific interest) about the policy or proposal?	☐	☐
Could the proposal affect how our services, commissioning or procurement activities are organised, provided, located and by whom?	☐	☐
Could the proposal affect our workforce or employment practices?	☐	☐
Is there potential for or evidence that the proposed policy or proposal will not promote equality of opportunity or promote good relations between different groups?	☐	☐
Please explain responses above		

For training on how to compete an Equality Impact Assessment, go to:
Equality, Diversity and Inclusion (EDI) @ ASPH (tickettailor.com)
For further help and guidance please contact:
Amandeep Chana: Equality, Diversity and Inclusion Officer (Amandeep.Chana@nhs.net)
Or
Pami Bains: Deputy Director of HR (Pami.Bains@nhs.net)

4. Equality Impact Assessment

Table 1.
Please complete this table for changes / new policies / services affecting workforce as well as those affecting patients. Please only consider negative impacts to these groups.

Protected characteristic	Describe here the considerations and concerns in relation to the programme/policy for each group.	Describe here suggested mitigations to inform the actions needed to reduce inequalities.
Age		
Disability		
Gender reassignment		
Marriage and civil partnership		
Pregnancy and maternity		
Race		
Religion or belief		
Sex		
Sexual orientation		
Carers*		

*This is not a protected characteristic as defined in the Equality Act 2010 but must be considered for the purpose of the EIA.

In addition to Table 1, please complete this table for changes / new policies / services affecting patients. There is no need to complete this table if your change / new policy / service affects only workforce. Please only consider negative impacts to these groups.

Other groups / existing inequity	Describe here the considerations and concerns in relation to the programme/policy for each group.	Describe here suggested mitigations to inform the actions needed to reduce inequalities.
Armed forces		
Digital exclusion		
Victims of domestic abuse		
Low levels of literacy		
Homeless		
Looked after children		
Rural/urban geographies		
Socioeconomic disadvantage		
People with addiction or substance misuse problems		
People on probation		
Prison population		
Undocumented migrants, refugees, asylum seekers		
Sex workers		
Other		

Ratification	11/2/2026		
By whom?	Paediatric Guideline Group		
Was it approved?	Yes		
Notes:	Review Feb 2029		
Signed:	Alexandra Jones	Date:	1/3/26
Position:	Paediatric guidelines lead		