Introduction

The Newcastle upon Tyne Hospitals NHS Foundation Trust is committed to minimising and reducing the risk of Healthcare Associated Infections (HCAIs) and providing a safe environment where patients can be confident that best practice is being followed at all times.

Peripheral intravenous (IV) cannulation is an invasive procedure which predisposes the patient to an increased risk of local and systemic infection from micro-organisms introduced either at the time of insertion or when insitu. Peripheral Intravenous Cannula (PIVC) related infections are associated with increased morbidity, prolonged hospitalisation and increased cost. Infections are most commonly caused by Staphylococci. The predominant source of these micro-organisms is likely to be from the patient’s endogenous flora colonising the skin or from the hands of the healthcare practitioner.

Scope

This policy applies to all healthcare professionals working within the organisation including medical staff, nurses, midwives, allied health professionals, assistant practitioners and students, who undertake cannulation or care for peripheral cannulae as part of their role.

Aims of Policy

This policy covers the process of peripheral IV cannulation, post insertion care, management and removal of PIVC. The recommended clinical procedure is based on evidence recognised to reduce the incidence of cannula-related complications, with particular emphasis on associated infection risks. Meticulous PIVC care during and following insertion is fundamental to reducing the risk of infection.

Duties (Roles and Responsibilities)

- Cannulation must only be undertaken independently by practitioners who have been appropriately trained and have been deemed competent, as detailed in the
competency package at: Cannulation Competency Assessment. Practitioners must undertake cannulation under supervision until deemed competent.

- As medical staff undertake cannulation competency as outlined in their training they are only required to complete the Direct Observation of Practice (DOP) assessment rather than the competency pack when joining the Trust.

- The Trust is responsible for ensuring that policies, education, training and procedures are in place to minimise the risk of infection.

- Line managers are responsible for ensuring that policies, education, training and procedures are made available to any staff who will undertake PIVC insertion and management.

- Ward Sister/Charge Nurse, Unit/ Department/ Service Managers are responsible for ensuring that staff are competent in insertion and management of PIVC prior to them undertaking these procedures. They should also ensure that appropriate guidance is available and clearly displayed for all staff to access e.g. in the treatment room.

- All staff competent in cannulation are responsible for ensuring that they maintain competency.

5 Definitions

Definitions used in this policy are:

Peripheral Intravenous Cannulae (PIVC) are specifically-designed flexible tubes designed for insertion into a blood vessel, with a proximal connector to allow injection or infusion of liquids. They are available in a variety of sizes (see appendix 1)

Midlines are increasingly used in the trust – they are long term peripheral cannula inserted in the upper arm or antecubital fossa in certain specific circumstances to provide 1-8 weeks venous access, although in the absence of signs of infection the manufacturer advises that they can stay in for considerably longer periods (follow manufacturer instructions).

Depending on the length of the catheter and insertion point they terminate in a small to medium sized vein (not a great vein). They are suitable for drug administration such as long courses of antibiotics and peripheral TPN. They will be inserted in interventional radiology, theatre or the critical care unit.

Further guidance on the insertion of these devices can be found in the Adult and Paediatric Guideline Insertion, Management and Removal of Central Venous Catheters policy.
Specific documentation will be completed with these lines and the monitoring sheet can be seen in Appendix 2. They are typically long and narrow gauge and it will usually be impossible to sample blood from them. Further information on the care of these lines is on the monitoring sheet. They must always be labelled as 'peripheral' cannulas and under no circumstances can be used for any drugs that require central administration.

Intravenous Cannulation is an invasive procedure for insertion of a hollow fine bore tube into the venous system.

Healthcare Associated Infections (HCAIs) are infections resulting from medical care or treatment in hospital (in or out-patient), nursing homes, community setting or the patient’s own home, which were not present or incubating prior to the medical care or treatment.

Aseptic Non-Touch Technique (ANTT) is a framework which provides a practice structure to minimise variation and develop competence in the principles necessary to maintain asepsis.

6 Insertion and Management of Peripheral IV Cannulae (including midlines)

6.1 Aim

This policy aims to standardise the insertion technique and subsequent management and removal of PIVCs. By using this policy the user will act to reduce the risks to patients and staff associated with peripheral IV cannulation.

6.1.1 Pre-insertion

- There must be a clear indication of clinical need for PIVC insertion, to prevent inappropriate insertion and exposure to associated risks
- The most appropriate peripheral device to be inserted must be chosen based on the treatment required i.e. peripheral IV cannula or midline
- If a midline is required please contact Interventional Radiology
- The patient’s verbal or implied consent to examination and treatment must be obtained.
- Where obtaining verbal/implied consent is not possible, a risk assessment by the healthcare professional must be undertaken regarding the need for examination and treatment.
- The procedure must be explained to the patient to ensure that they are informed of what the procedure entails and that the risk of allergic reaction to products used is minimised.
- Patients must also be aware of the importance of keeping the PIVC site clean, dry and intact.
6.1.2 Site selection (not midlines)

The insertion site should be determined by the risk of infection and mechanical complications.

It is generally preferable to use the non-dominant arm with the PIVC sited away from elbow and wrist joints, thereby reducing the likelihood of dislodgement through movement and to maintain cannula patency.

Hand veins have a lower risk of phlebitis than veins on the wrist or upper arm. Veins in the lower limbs should not be used routinely in adults and children due to the increased risk of embolism and thrombophlebitis. Any PIVC inserted into lower limbs should be re-sited to an upper limb as soon as possible. If possible, select most distal site for initial cannulation.

Pre-existing medical conditions or injury may prevent particular limbs from being used, e.g. the affected side of a patient who has had a stroke, renal patient with arterio-venous fistula, lymphoedema, a fractured limb, previous mastectomy, limb with bruised, painful, broken or infected skin.

6.1.3 Equipment

The following will be required to ensure the procedure is performed without disruption:

- Cannulation pack or:
  - Universal sanitising wipes (to clean tray if being used)
  - Clean procedure tray
  - Sterile gauze swabs
  - A single use application of 2% Chlorhexidine Gluconate in 70% Isopropyl alcohol
  - Sterile semi-permeable transparent dressing
  - Non-ported safety PIVC of appropriate size for all in-patient areas (unless there has been a prior agreement to use ported cannula)
  - Extension set connector (use single lumen where possible)
- Clean tape to secure extension set connector

The following items are not contained within the cannulation pack if used but will also be required:

- 0.9% Sodium Chloride or POSI flush solution for flushing, which must be prescribed and checked by a second registered practitioner (NB posiflush is a medical device and does not require a second checker)
- Non sterile, well-fitting gloves (unless there is a clear indication for gloves not being worn e.g. very difficult cannulations)
- Disposable or cleanable tourniquet (Reusable tourniquets may be used for low to medium risk patients and decontaminated between each
patient use with a universal sanitising wipe. Single patient use
tourniquets must be used for all high risk patients i.e. all patients in
isolation)
- A disposable apron
- Eye protection if there is a risk of splashing with blood or body fluids
- Sharps bin
- Topical local anaesthetic if required e.g. when inserting a 18G or larger
cannula
- Peripheral Intravenous Cannula Record sheet (see Appendix 2)

Peripheral IV cannula choice
- All PIVCs must be safety devices
- Non-ported cannula should be used for patients on in-patient areas,
  where possible
- Ported cannula can be used when the device is only required for short
term use such as for surgery e.g. theatres/anaesthetics, endoscopy,
day treatment units, or in emergency situations
- The Peripheral Intravenous Cannula Record must be completed for
  ALL cannulae regardless of duration in-situ

6.1.4 Procedure
For advice on correct practice for cannula insertion staff must refer to the
Cannulation Competency Assessment document. There is also a picture
guideline of the ANTT steps for this procedure which should be located on
all wards and departments and can also be seen on the Saving Lives web
page under Asepsis.

The following practices during PIVC insertion have been shown to
significantly reduce the incidence of HCAIs:

- Decontaminating hands immediately in advance of the procedure with
  an antiseptic solution, for example 4% Chlorhexidine gluconate
  (Hibiscrub). Please refer to the Trust Hand Hygiene Policy.
- Wearing non sterile gloves to protect the practitioner and patient
- Cleaning the insertion site for 20-30 seconds with a single use
  application of 2% Chlorhexidine Gluconate in 70% Isopropyl alcohol
  using a cross-hatch method and allowing to air dry (Povidone Iodine
  skin preparation may be used as an alternative if the patient has
  sensitivity to Chlorhexidine Gluconate).
- Not re-palpating the insertion site after disinfection
- Inserting the PIVC in accordance with ANTT; protecting the key site
  and key parts from contamination
- Attaching an the extension set
- Applying a sterile, semi-permeable transparent dressing correctly (see
  appendix 3)
• Documenting the insertion details on the **Peripheral Intravenous Cannula Record** sheet (see appendix 2)

6.2 **Management of the peripheral IV cannulae inserted by the ambulance personnel**

PIVCs inserted by ambulance personnel should have a yellow ambulance label attached to the sterile dressing at the furthest point from the insertion site. This label indicates that the PIVC has been inserted aseptically. If this label is not present and the ambulance personnel have not clearly communicated that the PIVC was inserted aseptically it should be assumed that this cannula has been inserted in an uncontrolled manner and therefore must be removed at the earliest and safest opportunity (this should ideally be within 24 hours).

It is essential that a clinical assessment of the size, position and requirement of the PIVC should be reviewed on a regular basis, initially by the admitting team.

6.3 **Documentation**

The **Peripheral Intravenous Cannula Record** sheet must be commenced and fully completed by the person inserting the cannula. Subsequent observations; as detailed in section 6.4, must be documented on this record.

It is essential that accurate records of peripheral IV access and management are maintained. If a patient has a PIVC in situ which cannot be identified as being inserted using ANTT and there is no accompanying record, then the cannula must be removed, and re-sited (when appropriate and safe to do so) following the correct procedure.

Documentation is the responsibility of the individual carrying out the procedure.

6.4 **Post-insertion care and management**

To reduce the risk of catheter related infection the PIVC must be accessed and managed appropriately by adhering to the following principles:

- Use standard ANTT for all PIVC contact/manipulations.
- Decontaminate hands with an antiseptic solution for example 4% Chlorhexidine gluconate and wear non-sterile gloves prior to accessing the PIVC.
- The PIVC port must not be used to administer IV medications unless in emergency situations or in strictly controlled environments such as in the anaesthetic and/or theatre departments, but **ONLY VIA NEWLY INSERTED DEVICES (unless an absolute emergency)**
- PIVCs must be accessed via the needle-free device on the extension set
• If administering IV drugs please refer to the Training Pack and Competency Assessment for the Preparation, Administration and Monitoring of Peripheral Intravenous Drugs and the ANTT picture guidelines located on the Saving Lives web page under Asepsis.
• The PIVC site and patency must be checked prior to all drug administrations.
• The port must be scrubbed for at least 20-30 seconds with 2% Chlorhexidine Gluconate in 70% Isopropyl alcohol impregnated wipe and allowed to air dry for 30 seconds prior to accessing the device.
• The cannula must always be flushed with a minimum of 0.9% Sodium Chloride pre and post drug administration with a minimum of 0.9% sodium chloride.

The insertion site must be inspected a minimum of twice daily and prior to all drug administrations and IVT changes, to check that the site is dry and clean, shows no signs of redness (erythema) or irritation and that the dressing is intact. Any bandages in-situ covering the PIVC must be removed during the inspection to expose the insertion site and infusion route.

The PIVC inspection must be recorded on the Peripheral Intravenous Cannula Record sheet. If the cannulation area shows signs of redness, irritation, infection, swelling or pain, the PIVC must be removed and a member of a medical team informed.

It is advisable that peripheral cannula or midlines in children which have continuous infusions or IVT running are monitored hourly and the check completed on the fluid balance chart, in addition to the twice daily inspections recorded on the PIVC record.

If RAPID INFUSION is failing via an extension set during resuscitation situations the extension set must be removed and the infusion set attached directly onto the cannula.

Midlines – these lines require specific management. They should be flushed with 10mls 0.9% sodium chloride prior to and after each drug administration. Be aware that it is impossible to aspirate blood prior to flushing from the line. See the record sheet for further information.

6.5 Peripheral IV cannulae dressing change

The PIVC dressing protects the puncture site and minimises the risk of infection between the peripheral cannula surface and the skin. The PIVC insertion site is an open wound so the dressing must be sterile and applied using ANTT to prevent contamination.
PIVC dressings must be replaced when they become; damp, loosened, no longer occlusive or adherent, visibly soiled, or if there is excessive accumulation of fluid under the dressing.

Dressings must be applied using the following principles:
- Explain procedure to patient and ensure patient is comfortable
- Decontaminate hands with soap and water/ alcohol hand gel before the procedure
- Gather all required equipment in a cleaned procedure tray (2% Chlorhexidine Gluconate in 70% Isopropyl alcohol wipes, non-sterile gloves, disposable apron, sterile semi-permeable transparent dressing)
- Decontaminate hands prior to the procedure with an antiseptic solution, for example 4% Chlorhexidine (Hibiscrub). Please refer to the Trust Hand Hygiene Policy
- Do not use scissors to remove dressing as there is a risk of damaging the device/skin
- Remove the dressing by lifting and stretching the dressing towards the practitioner to break the dressing integrity and loosen This prevents premature removal of the PIVC
- Clean the insertion site with a 2% Chlorhexidine gluconate in 70% isopropyl alcohol wipe, as necessary (This is not necessary if the insertion site is dry and clean).
- Apply a new dressing using ANTT and the technique seen in appendix 4
- Record dressing change on the Peripheral Cannula Insertion and Ongoing Care Record sheet
- Dispose of all equipment as per Trust policy
- Decontaminate hands as per Trust policy.

6.6 Removal of peripheral IV cannulae

PIVC must be removed ≤ 72 hours or when clinically indicated. Removal must be carried out under aseptic conditions as the risks of potential infection remain. The following principles must be applied:

- Decontaminate hands before the procedure with an antiseptic solution
- Wear non-sterile gloves and a disposable apron
- Remove dressing as described above
- Gently remove the PIVC
- Immediately following the removal of the PIVC, apply firm pressure with sterile gauze for 2-3 minutes or until the bleeding has stopped
- Cover the puncture site with a sterile, adhesive dressing
- Record any signs of phlebitis on the Peripheral Intravenous Cannula Record sheet and inform a member of the medical team. Record removal date onto Peripheral Intravenous Cannula Record sheet
• Where venous access is limited the PIVC can remain in situ for longer than 72 hours providing there are no signs of infection, and a risk assessment is undertaken daily and documented in the patient’s nursing or medical records.

**Midlines** can remain in situ for several weeks – the exact duration depends on the individual line and will be recorded on the midline record sheet. The line should be removed when it is no longer needed, if there is evidence of infection (after medical review) or when the line reaches its expiry date (discuss with responsible clinician before removing). If the line is essential for ongoing care but appears blocked please discuss this with interventional radiology before removing as it can sometimes be rescued.

### 7 Training

All Trust staff are responsible for accessing Infection Prevention and Control (IPC) policies in order to ensure correct management of their patients.

Staff required to insert PIVC must attend and follow the Trust training programme and complete Peripheral Cannulation Competency Assessment prior to undertaking this procedure. Medical staff are required to complete the DOP for this procedure.

The ANTT steps for cannulation in photographic guidelines should be used to assist staff when undertaking the procedure. This can be found on the [Saving Lives webpage under Asepsis](https://www.ntw.nhs.uk/pic/selfhelp/).

Staff also need to be aware of patients who suffer from needle or other phobias and able to manage this appropriately. Further information and guidance on this can be found via the links below:

- [https://www.ntw.nhs.uk/pic/selfhelp/](https://www.ntw.nhs.uk/pic/selfhelp/)
- [https://www.nice.org.uk/guidance/cg123](https://www.nice.org.uk/guidance/cg123)

### 8 Equality and diversity

The Trust is committed to ensuring that, as far as is reasonably practicable, the way we provide service to the public and the way we treat our staff reflects their individual needs and does not discriminate against individuals or groups. This policy has been appropriately assessed.
9 Monitoring compliance

Please see the table below for standards and monitoring arrangements:

<table>
<thead>
<tr>
<th>Standard / process / issue</th>
<th>Monitoring and audit</th>
<th>Method</th>
<th>By</th>
<th>Committee</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education and training on PIVC insertion and management</td>
<td>IPC e-learning for medical and Nursing and Midwifery staff</td>
<td>Mandatory training data</td>
<td>IPCC</td>
<td>Trust Education Group (TEG)</td>
<td>Required annually Monthly compliance reports</td>
</tr>
<tr>
<td>Compliance with Peripheral Cannulation Competency</td>
<td>1) Trust Peripheral Cannulation Competency Assessment Package</td>
<td>1)Nursing staff and AHPs who undertake cannulation</td>
<td>IPCC</td>
<td>2) Annual</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2) Medical staff ANTT competence for PIVC insertion</td>
<td>2) All medical staff</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Implementation of correct procedure for PIVC insertion and documentation</td>
<td>Clinical Assurance Tool for nurses/midwives</td>
<td>Sisters/Charge Nurses/Matrons</td>
<td>IPCC</td>
<td>Annual</td>
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</tr>
<tr>
<td>Correct management of Peripheral IV devices</td>
<td>Peripheral IC cannula prevalence and management audit</td>
<td>IPC Team</td>
<td>IPCC</td>
<td>Annual</td>
<td></td>
</tr>
</tbody>
</table>

10 Consultation and review

This policy has been reviewed by the members of the Infection Prevention and Control Team, the Trust Lead for ANTT, the Peripheral Cannula group, and the Infection Prevention and Control Committee. It will be reviewed every three years or when significant changes make earlier review necessary.

11 Implementation

Matrons/Sisters/Charge nurses and Clinical Leads should ensure that staff are aware of this policy. This policy is available for staff to access via NUTH intranet.
12 Supporting Literature


13 Associated documentation

- Cleaning and Disinfection Procedure
- Consent to Examination and Treatment
- Hand Hygiene Policy
- Healthcare Acquired Infections, Prevention and Control Strategy
- Needle stick Injuries and Blood Borne Virus Exposure: Code of Practice
- Patient Identification Policy
- Patients with Blood Borne Viral Infections
- Standard Precautions Policy
- Waste Management Policy and Procedures
<table>
<thead>
<tr>
<th>Size (gauge)</th>
<th>Common colour</th>
<th>Approximate flow rate (ml/min)</th>
<th>Common applications</th>
</tr>
</thead>
<tbody>
<tr>
<td>14 G</td>
<td>Orange</td>
<td>240</td>
<td>Resuscitation for rapid infusion of fluid or transfusion of blood</td>
</tr>
<tr>
<td>16 G</td>
<td>Grey</td>
<td>180</td>
<td>Used in theatres or an emergency for rapid infusion of fluid or transfusion of blood</td>
</tr>
<tr>
<td>18 G</td>
<td>Green</td>
<td>100</td>
<td>Infusion of blood transfusion/blood products, parenteral nutrition or large volume of fluids</td>
</tr>
<tr>
<td>20 G</td>
<td>Pink</td>
<td>60</td>
<td>Patients receiving long-term medication, maintenance fluid up to 2-3 litres a day, IV contrast administration, IV bolus</td>
</tr>
<tr>
<td>22 G</td>
<td>Blue</td>
<td>35</td>
<td>Oncology patients, paediatric patients, adults with small veins</td>
</tr>
<tr>
<td>24 G</td>
<td>Yellow</td>
<td>20</td>
<td>Paediatric patients, neonates use</td>
</tr>
</tbody>
</table>
**Peripheral Intravenous Cannula Record**

This document MUST be completed for all peripheral IV cannula by the person who undertakes the procedure/observation.

<table>
<thead>
<tr>
<th>Phlebitis Score</th>
<th>Signs</th>
<th>Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>No pain or signs of inflammation</td>
<td>Continue to observe</td>
</tr>
<tr>
<td>1</td>
<td>Pain or redness around the cannula exit site</td>
<td>Remove and observe exit site daily until healed. Replace in alternative site if still required. Document appearance in nursing notes.</td>
</tr>
<tr>
<td>2</td>
<td>As above &amp; swelling or tracking</td>
<td>As above &amp; treat as necessary</td>
</tr>
<tr>
<td>3</td>
<td>As above &amp; presence of pus or pyrexia</td>
<td>As above &amp; complete a DATIX</td>
</tr>
</tbody>
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**Insertion details**

<table>
<thead>
<tr>
<th>Date and time</th>
<th>Site of insertion</th>
<th>Indication for insertion (Tick all that apply):</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>IV fluids</td>
</tr>
<tr>
<td></td>
<td></td>
<td>R</td>
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<td></td>
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<td>R</td>
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**On-going care details**

<table>
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<tr>
<th>To be completed every shift</th>
<th>Date:</th>
<th>Date:</th>
<th>Date:</th>
<th>Date:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>am</td>
<td>night</td>
<td>am</td>
<td>night</td>
</tr>
<tr>
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<td>night</td>
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<td>am</td>
<td>night</td>
<td>am</td>
<td>night</td>
</tr>
</tbody>
</table>

- Phlebitis score (0-3)
- Still required (Y/N)
- Dressing intact, dry and clean (Y/N) or changed (C)
- Initials

If in-situ > 72 hrs document reason why

**Removal details**

<table>
<thead>
<tr>
<th>Date removed</th>
<th>Removed by (sign and print name)</th>
</tr>
</thead>
</table>

**Cannula 2**

**Insertion details**

<table>
<thead>
<tr>
<th>Date and time</th>
<th>Site of insertion</th>
<th>Indication for insertion (Tick all that apply):</th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>IV fluids</td>
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<td></td>
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**On-going care details**

<table>
<thead>
<tr>
<th>To be completed every shift</th>
<th>Date:</th>
<th>Date:</th>
<th>Date:</th>
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<td>night</td>
<td>am</td>
<td>night</td>
</tr>
</tbody>
</table>

- Phlebitis score (0-3)
- Still required (Y/N)
- Dressing intact, dry and clean (Y/N) or changed (C)
- Initials

If in-situ > 72 hrs document reason why

**Removal details**

<table>
<thead>
<tr>
<th>Date removed</th>
<th>Removed by (sign and print name)</th>
</tr>
</thead>
</table>

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Appendix 3

Midline Insertion and Management Record

The Newcastle upon Tyne Hospitals NHS Foundation Trust

Midline Insertion and Management Record
This document MUST be completed for all midlines by the person who undertakes the procedure or on-going observations.

Insertion details

<table>
<thead>
<tr>
<th>Date and time</th>
<th>Site of insertion</th>
<th>Indication for insertion</th>
<th>Type of device</th>
<th>Technique (oral)</th>
</tr>
</thead>
</table>

Characteristics

<table>
<thead>
<tr>
<th>Before procedure</th>
<th>During procedure</th>
<th>Following procedure</th>
<th>Immediate complications</th>
</tr>
</thead>
</table>

Key points for midline management:
- Dressing: Leave dressing for 7 days if dry and intact. Be clean the insertion site prior to re-dressing (unless know dressing).
- Catheter injection ports: Injection ports should be covered with a narrow gauge, blood may be taken from lines with a catheter by trained and competent staff and the main catheter.
- Catheter access: Use an aseptic non-touch technique, gauze with 2% chlorhexidine gluconate in 70% isopropyl alcohol.
- Catheter care: Flush the midline with 1ml 0.9% saline using aseptic technique prior to removing contact the original inserter.
- Catheter observations: The catheter must be observed every hour.
- Administration of replacement: Following administration, total parenteral nutrition—after 24 hours if 10 ml/hour, document changes.

Phlebitis score

<table>
<thead>
<tr>
<th>Score</th>
<th>Signs</th>
<th>Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>No pain or sign of inflammation</td>
<td>Continue to observe</td>
</tr>
<tr>
<td>1</td>
<td>Pain or redness around the cannula exit site</td>
<td>ONLY remove if requested following a medical review. Document appearance in nursing notes</td>
</tr>
<tr>
<td>2</td>
<td>As above &amp; swelling present</td>
<td>Remove &amp; treat as necessary</td>
</tr>
<tr>
<td>3</td>
<td>As above &amp; presence of pus or pynema</td>
<td>Remove &amp; complete a DARTV</td>
</tr>
</tbody>
</table>

Ongoing care details

<table>
<thead>
<tr>
<th>To be completed twice daily</th>
<th>Date:</th>
<th>Time:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phlebitis score (0-3)</td>
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<td></td>
</tr>
<tr>
<td>Skill required (Y/N)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dressing inst, dry &amp; clean (Y/N)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lumen flushed (minimum of Daily)</td>
<td></td>
<td></td>
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</tbody>
</table>

Removal details

<table>
<thead>
<tr>
<th>Date removed</th>
<th>Reason for removal</th>
</tr>
</thead>
</table>

This documentation must be filled in the medical notes when complete (nursing notes for community).
Midline management Record Continuation Sheet

## Insertion details

<table>
<thead>
<tr>
<th>Site &amp; significance</th>
<th>Date of insertion</th>
<th>Estimated date for removal</th>
<th>Indication for continued use</th>
</tr>
</thead>
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</table>

## Phlebitis Score

<table>
<thead>
<tr>
<th>Score</th>
<th>Signs</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td></td>
<td>Continue to observe</td>
</tr>
<tr>
<td>1</td>
<td>Pain or redness around the site</td>
<td>Remove and restart at mandatory</td>
</tr>
<tr>
<td>2-3</td>
<td>Abscess, swelling of localised area</td>
<td>Remove and restart a 17G IV</td>
</tr>
</tbody>
</table>

## Ongoing care details

<table>
<thead>
<tr>
<th>To be completed twice daily</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date:</td>
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<tr>
<td>Date:</td>
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<td>Date:</td>
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<td>Date:</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Phlebitis score (0-3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Still required (Y/N)</td>
</tr>
<tr>
<td>Dressing intact, dry and clear (Y/N) or changed - weekly (Y/N)</td>
</tr>
<tr>
<td>Lumen flushed (minimum of daily)</td>
</tr>
</tbody>
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<tr>
<td>Lumen flushed (minimum of daily)</td>
</tr>
</tbody>
</table>

## Key points for midline management

- **Dressing**: Leave dry dressing for 7 days if dry and intact. Use 2% chlorhexidine gluconate in 70% isopropyl alcohol to clean the insertion site prior to redressing (unless known allergy) use a different sterile, latex-free transparent dressing.
- **Care of port hub**: The port hub should be covered by TMO bionerter. Blood cannot be taken from those of a narrow gauge. Blood may be taken from lines with a larger gauge but ONLY in critical care areas. If essential, and NOT by fully trained and competent staff, and this procedure will cause damage and the risk of infection.
- **Access**: Use an aseptic non-touch technique (ANTT) for any access to the line. Clean the catheter port/hub with 2% chlorhexidine gluconate in 70% isopropyl alcohol and leave to air dry prior to accessing the line for administering fluids or injections.
- **Catheter Care**: Flush the midline with 10mls 0.9% Saline (flushes) before and after each use. If the line becomes blocked, please seek advice prior to removing the line. The ward doctor should review. If unsure, MUST contact the original donor.
- **Catheter Observations**: The catheter must be reviewed twice daily, and the observations/care documented over 24 hours.
- **Administration set replacement**: Following administration of blood, blood products—immediately. Following renal replacement therapy—after 24 hours if containing fluids. With other fluid sets—after a maximum of 72 hours, record changes.

This documentation must be filled in the medical notes when complete (nursing notes for community care).
Dressing Techniques

Cannula with wings

Parallel Tape Dressing Application for Introcan Safety® 3 Cannula
Shown with 3M™ Tegaderm™ Advanced IV Dressing (1681)
CORRECT APPLICATION OF THE DRESSING IS ESSENTIAL TO ENSURING THE CANNULA REMAINS SECURE

1. Prior to cannulation remove centre cut-out from dressing and keep the sterile pre-cut tape strips. After cannulation place one tape strip down each catheter wing ensuring they are parallel and do not obscure the insertion site.

2. Peel paper liner from framed dressing to expose adhesive surface. Place dressing over the catheter so that the transparent film is over the insertion site. Ensure it can be clearly seen and the dressing tab edges cross beneath the needlefree device.

3. Remove paper frame. Smooth dressing edges to increase adhesion.

4. Loop the extension set and secure with the an additional piece of clean tape. Ensure the tape strip does not cover the dressing as it may de-stabilise the dressing when the extension set is accessed.

5. Record date/time/cannulator initials on date strip and apply to edge of dressing.

ALWAYS ENSURE CANNULA INSERTION SITE IS VISIBLE
Cannula with small/no wings

**Single Strip Dressing Application for Introcan Safety® Cannula 3**
Shown with 3M™ Tegaderm™ Peripheral Line I.V. Dressing (1633)

**CORRECT APPLICATION OF THE DRESSING IS ESSENTIAL TO ENSURING THE CANNULA REMAINS SECURE**

1. Prior to cannulation remove centre cut-out from dressings and keep the sterile pre-cut tape strips. After cannulation place one tape strip over the catheter wings for added security. If preferred this can be done before the stylet is removed and needlefree device is connected.

2. Peel paper liner from framed dressing to expose adhesive surface. Place dressing over the catheter so that the transparent film is over the insertion site. Ensure it can be clearly seen and the dressing tab edges cross beneath the needlefree device.

3. Remove paper frame. Smooth dressing edges to increase adhesion.

4. Loop the extension set and secure with the second pre-cut tape strip.

5. Record date/time/cannulator initials on date strip and apply to edge of dressing.

ALWAYS ENSURE CANNULA INSERTION SITE IS VISIBLE
1. **Assessment Date:** 11.7.2017

2. **Name of policy / strategy / service:**
   - Peripheral Intravenous Cannula Insertion and Management Policy

3. **Name and designation of Author:**
   - Allison Sykes, Practice Development Lead Infection Prevention and Control

4. **Names & designations of those involved in the impact analysis screening process:**
   - Ashley Price - Director of Infection Prevention and Control, Allison Sykes, Lucy Hall- Equality and Diversity Lead

5. **Is this a:**
   - Policy [ ] Yes [ ] No
   - Strategy [ ] Yes [ ] No
   - Service [ ] Yes [ ] No

   **Is this:**
   - New [ ] Yes [ ] No
   - Revised [ ] Yes [ ] No

   **Who is affected**
   - Employees [ ] Yes [ ] No
   - Service Users [ ] Yes [ ] No
   - Wider Community [ ] Yes [ ] No

6. **What are the main aims, objectives of the policy, strategy, or service and the intended outcomes?** *(These can be cut and pasted from your policy)*
   - The policy gives detail of the correct procedures for insertion and on-going management of peripheral intravenous cannulae

7. **Does this policy, strategy, or service have any equality implications?**
   - Yes [X] No [ ]

   **If No, state reasons and the information used to make this decision, please refer to paragraph 2.3 of the Equality Analysis Guidance before providing reasons:**
   - [ ]
### 8. Summary of evidence related to protected characteristics

<table>
<thead>
<tr>
<th>Protected Characteristic</th>
<th>Evidence, i.e. What evidence do you have that the Trust is meeting the needs of people in various protected Groups</th>
<th>Does evidence/engagement highlight areas of direct or indirect discrimination? If yes describe steps to be taken to address <em>(by whom, completion date and review date)</em></th>
<th>Does the evidence highlight any areas to advance opportunities or foster good relations. If yes what steps will be taken? <em>(by whom, completion date and review date)</em></th>
</tr>
</thead>
</table>
| Race / Ethnic origin (including gypsies and travellers) | Provision of Interpreting service and leaflet translation  
E&D Training for staff | No | No |
| Sex (male/ female) | Male and female practitioners are available to promote the dignity of patients when required | No | No |
| Religion and Belief | Chaplaincy service provided with links to leaders of major faiths | No | No |
| Sexual orientation including lesbian, gay and bisexual people | No relevant good practice | No | No |
| Age | Innovations to support people with Dementia  
Nurse Specialist Dementia Care available for further advice and support | No | No |
| Disability – learning difficulties, physical disability, sensory impairment and mental health. Consider the needs of carers in this section | Provision of BSL Signers and Deaf Blind Guides  
Provision of LD Liaison Nurse | Some patients with a disability may have more anxiety when staff need to insert an intravenous cannula others may have a needle phobia. The learning disability liaison nurse and dementia support team are available for advice and support relating to patients with these conditions. | Staff awareness of patients with needle and other phobias / anxieties to be included in PIVC insertion training. |
Gender Re-assignment | No relevant good practice | No | No
---|---|---|---
Marriage and Civil Partnership | No relevant good practice | No | No
Maternity / Pregnancy | No relevant good practice | No | No

9. Are there any gaps in the evidence outlined above? If ‘yes’ how will these be rectified?

No

10. Engagement has taken place with people who have protected characteristics and will continue through the Equality Delivery System and the Equality Diversity and Human Rights Group. Please note you may require further engagement in respect of any significant changes to policies, new developments and or changes to service delivery. In such circumstances please contact the Equality and Diversity Lead or the Involvement and Equalities Officer.

Do you require further engagement? Yes [ ] No [x]

11. Could the policy, strategy or service have a negative impact on human rights? (E.g. the right to respect for private and family life, the right to a fair hearing and the right to education?)

No

PART 2

Name:
Allison Sykes / Ashley Price / Lucy Hall

Date of completion:
11.7.2017

(If any reader of this procedural document identifies a potential discriminatory impact that has not been identified, please refer to the Policy Author identified above, together with any suggestions for action required to avoid/reduce the impact.)