National Clinical Policy and Procedural Guideline for Nurses and Midwives undertaking Venepuncture in Adults
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1.0 Introduction

1.1 Policy Statement

It is the policy of the HSE that registered nurses and midwives undertaking venepuncture must have successfully achieved competence having completed an education programme that is compliant with the HSE Guiding Framework for the Education, Training and Competence Validation in Venepuncture and Peripheral Intravenous Cannulation for Nurses and Midwives (2010). In addition, nurses and midwives undertaking venepuncture will do so in accordance with the procedural elements as outlined in this policy.

1.2 Purpose

The purpose of this policy is to:

- Outline the roles and responsibilities of the clinical line manager and the nurse or midwife undertaking the skill of venepuncture
- Set out procedures based on best evidence, aligned with the national HSE standardised approach, which safeguard the patient and guide the nurse or midwife in the performance of venepuncture
- Aid in the preparation and support of patients and their families while undergoing venepuncture

1.3 Scope

This policy applies to all nurses and midwives, who have successfully completed the required education, training and competence assessment to carry out venepuncture.

1.4 Disclaimer

The information contained within this policy is the most accurate and up to date, at date of approval. The policy contains a procedural guideline and it is the responsibility of the local organisation, to update this guideline, according to best practice.
2.0 Glossary of Terms

**Aseptic Technique:** Aseptic Technique is implemented during any invasive procedure that bypasses the body’s natural defences e.g. the skin or when handling equipment such as peripheral intravenous cannulae. This technique is used to reduce the potential problem of introducing pathogenic microorganisms into the body when the integrity and/or effectiveness of the natural body defences has been reduced.

(Jamieson et al., 1988, Dougherty and Lister, 2009)

**Assessor:** An assessor is an identified nurse or midwife, who has undertaken a similar educational and clinical programme and is a competent expert practitioner. It is recommended that nurses and midwives develop their competence within specific disciplines, according to their practice.

**Competence:** The ability of the registered nurse or midwife to practice safely and effectively fulfilling his/her professional responsibility within their scope of practice.

(An Bord Altranais, 2000)

**Family Centred Care:** A way of caring for patients and their families within health services which ensures that care is planned around the whole family, not just the individual patient and in which all the family members are recognised as care recipients.

(Shields et al., 2006)
Nurse: A nurse is a person registered in the Live Register of Nurses as provided for in Section 27 of the Nurses Act 1985 and includes a midwife and nursing includes midwifery – Code of Professional Conduct for each Nurse and Midwife.

(An Bord Altranais, 2000)

Order of Draw: The order of blood draw refers to the sequence in which blood collection bottles should be filled.

(WHO, 2002)

Safety Blood Collection Systems: Safety blood collection systems are single use blood collection systems that enhance safer venepuncture. Equipment utilised for the procedure is approved for use in this organisation.

Venepuncture: Venepuncture is the introduction of a needle into a vein to obtain a blood sample for haematological, biochemical or bacteriological analysis (also known as phlebotomy, venesection, drawing/ taking blood).

(Lavery & Ingram, 2005)
3.0 Roles and Responsibilities

3.1 Role and Responsibility of the Clinical Line Manager

It is the responsibility of the clinical nurse or midwife manager or line manager to ensure that nurses and midwives, who are undertaking venepuncture fulfil the following criteria. Nurses and midwives must:

- Be registered on the live register of nurses and midwives maintained by An Bord Altranais
- Be employed in the HSE
- Be approved by their Clinical Nurse or Midwife Manager as an appropriate person to expand their practice, to include venepuncture
- Be employed in an area where venepuncture is required to enhance service provision
- Successfully complete the educational preparation and competence assessment provided by this organisation, that is compliant with or equivalent to that outlined in the HSE Guiding Framework for the Education, Training and Competence Validation in Venepuncture and Peripheral Intravenous Cannulation for Nurses and Midwives (2010)

3.2 Role and Responsibility of the Nurse and Midwife

It is the responsibility of each registered nurse and midwife to:

- Work within their Scope of Practice - Scope of Practice Framework for Nurses and Midwives, (An Bord Altranais, 2000)
- Comply with local organisational venepuncture policy and procedures therein, when undertaking venepuncture
- Become competent in the skill of venepuncture and:
  i. the equipment specific to the procedure
  ii. the use of blood collection systems used in this organisation
  iii. the relevant blood collection bottles and related blood tests used in their area. The colours of these will vary depending on the system used in the organisation and/or depending on the laboratory processing the sample
- Be familiar and comply with the organisation’s infection prevention and control, health and safety procedures and risk management policies as they apply to venepuncture
4.0 Procedural Guideline for the Venepuncture Procedure

4.1 Indications for the Venepuncture Procedure

Venepuncture is the procedure of entering a vein with a needle and is undertaken to:

- Obtain a blood sample for diagnostic purposes using haematological, biochemical and bacteriological analysis
- Monitor levels of blood components.

4.2 Considerations When Undertaking the Venepuncture Procedure

Venepuncture is one of the most common invasive procedures and can be traumatic for the patient and family. It should only be ordered when necessary. A clinical assessment should be undertaken prior to the venepuncture procedure.

4.3 Preparation for Procedure

4.3.1 Informed Consent

Informed consent should be obtained from the patient or legal guardian prior to the procedure and as per local organisational policy. Informed consent is obtained from the legal guardian or next of kin if the patient does not have the cognitive ability to understand or make an informed decision. If the patient or family do not speak English, arrangements must be made to ensure the procedure is understood and the consent is valid. The patient should be given adequate information and explanation. Identify preferences in relation to the venepuncture site should be discussed (Dominant hand, clothing worn etc).

4.3.2 Topical Anaesthetic Agents

Topical anaesthetic agents such as Ametop Gel, EMLA Cream and Ethyl Chloride Spray produce numbness of the skin and have been proven to reduce the pain experienced during the venepuncture procedure (Dougherty, 2008). The need for local anaesthetic agents prior to the procedure should be considered on an individual basis (Scales, 2005). Details of topical anaesthetic agents suitable for adults are:

- **Ametop Gel**: Consists of Amethocaine 4% Gel. Application Time: Minimum of 30 minutes prior to procedure. Side Effects: Redness, swelling and itchiness
- **EMLA Cream** (Eutectic mixture of local anaesthetics). Consists of: Lidocaine and Prilocaine 5% Cream. Application Time: Minimum of one hour prior to procedure. Side Effects: Redness, swelling and itchiness
• **Ethyl Chloride Spray**: Consists of Ethyl Chloride Spray. Indications: Use if allergic to or has poor tolerance or anxiety relating to other agents or occlusive dressings. Suitable in emergency situations due to its immediate action. Application Time: Immediate. Side Effects are extremely rare and include: cutaneous sensitisation, pigmentation. Overexposure can lead to headaches, dizziness, vomiting, loss of co-ordination and disorientation.

Topical anaesthetic agents should be applied to a limited number of locations only, as excessive use of agent can be harmful when absorbed (Scales, 2005 and Franurik et al., 2000). Topical anaesthetic agents must be prescribed on an individual basis and be used according to manufacturer’s instructions.

### 4.4 Vein Selection in Adults

Choosing the correct vein is important. When selecting the appropriate site of vein for venepuncture, it is best practice to begin in the most distal aspect of the vein. This allows for further attempts above the selected vein which will not have been impeded. When cannulating adults, the specific advantages and disadvantages of potential venepuncture sites must be considered. These are outlined below:

<table>
<thead>
<tr>
<th>Median Cubital Vein in the Antecubital Fossa</th>
<th>Advantages</th>
<th>Disadvantages</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Clearly visible and accessible</td>
<td>Brachial artery and radial nerve in close proximity</td>
</tr>
<tr>
<td></td>
<td>Deep veins with rich blood supply</td>
<td>Difficult to locate in child with increased subcutaneous fat</td>
</tr>
<tr>
<td></td>
<td>Easy to palpate</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Well supported by subcutaneous tissue (prevents vein rolling under the needle)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Accessible in thin people</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cephalic and Basilic Veins in the Forearm</th>
<th>Advantages</th>
<th>Disadvantages</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Easy to locate</td>
<td>Cannot be used if site is used for arteriovenous fistula</td>
</tr>
<tr>
<td></td>
<td>Larger veins</td>
<td>Not well supported by subcutaneous tissue (vein can roll from needle)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Metacarpal Veins in the Dorsal Venous Network</th>
<th>Advantages</th>
<th>Disadvantages</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Easily accessible, easily visualised and palpable</td>
<td>Difficult to secure</td>
</tr>
<tr>
<td></td>
<td>Prominent in obese patients</td>
<td>Skin can be delicate and subcutaneous tissue is diminished (small veins may only offer small volumes of blood)</td>
</tr>
</tbody>
</table>

|                                               | Only suitable for small blood collection set (23G Butterfly system) | |

...
4.5 **Clinical Assessment**

A clinical assessment should be carried out by the nurse or midwife prior to the venepuncture procedure. Consideration must be given to the patient’s cognitive and mobility needs when selecting a site. A Four Step Approach is outlined as follows:

**Four Step Approach – Clinical Assessment**

**Check**
- The indication for venepuncture to determine equipment and specific bottles to use
- If the patient has fasted as required for specific tests
- The clinical condition (acute/chronic/emergency) of the patient
- Location and length of the vein
- Condition of the vein (visual and palpation)
- Area is warm prior to the venepuncture procedure (veins constrict if cold, making the procedure more difficult)
- Allergies to topical anaesthetic agents or plasters
- For needle phobia
- Previous history of difficult venepuncture procedures
- Increased amounts of subcutaneous fat
- For history of blood borne viruses, bleeding disorders or if receiving anticoagulation therapy

**Choose**
- Most distal aspect of the vein
- Non-dominant hand
- Correct location, avoiding arteries and nerves
- Appropriate equipment to undertake procedure
- Appropriate topical anaesthetic agent

**Avoid**
- Hard, sclerosed, fibrosed, knotty, thrombosed veins or previous venepuncture sites
- Sites with intravenous infusions in situ
- Sites that may require peripheral intravenous central catheter (PICC) insertion or arterial monitoring
- Valves in the vein (if visible or palpable)
- Duplication of blood orders
- Veins suitable for peripheral intravenous cannulation and treatment if the patient requires repeated treatments such as chemotherapy.

**Do Not Use**
- Arm with obvious infection or bruising
- Arm with a fracture
- Arm with an arteriovenous (AV) fistula
- Arm affected by a cerebro vascular accident
- Arm affected by lymphoedema or where axillary node clearance has taken place, for example post mastectomy
4.6 Equipment

The equipment required for the venepuncture procedure is outlined in each of the venepuncture procedures in appendix i. Equipment required should be based on the assessment of the patient and the specific blood tests required.

<table>
<thead>
<tr>
<th>Venepuncture Procedure –Adult- List of Equipment</th>
</tr>
</thead>
<tbody>
<tr>
<td>• A clean clinical tray</td>
</tr>
<tr>
<td>• Small kidney dish for Healthcare Risk Waste (placed in tray)</td>
</tr>
<tr>
<td>• Sharps container (large enough to accommodate the blood collection system)</td>
</tr>
<tr>
<td>• Disposable non sterile sheet – (optional in case of blood spillage)</td>
</tr>
<tr>
<td>• *Personal Protective Equipment (e.g., 2 pairs of well fitting non-sterile gloves, protective plastic apron, safety goggles/visor/mask with eye shield)</td>
</tr>
<tr>
<td>• Skin disinfectant – 70% impregnated alcohol wipes or 2% Chlorhexidine in 70% alcohol when supply available</td>
</tr>
<tr>
<td>• Alcohol hand rub/gel</td>
</tr>
<tr>
<td>• Clean tourniquet</td>
</tr>
<tr>
<td>• Topical anaesthetic agent if prescribed</td>
</tr>
<tr>
<td>• **Required blood collection set</td>
</tr>
<tr>
<td>• **Required blood specimen bottles</td>
</tr>
<tr>
<td>• Blood Requisition Forms (fully completed with infant details)</td>
</tr>
<tr>
<td>• A biohazard bag for transport of specimens</td>
</tr>
<tr>
<td>• Sterile gauze – (to apply pressure and absorb blood spillages)</td>
</tr>
<tr>
<td>• Sterile plaster/band aid</td>
</tr>
</tbody>
</table>

*As per Standard Precautions, the use of a plastic apron and/or face protection should be assessed by each Health Care Worker based on the risk of blood splashing or spraying during the procedure.

**Range and type of equipment may vary depending on local organisational policy
4.6.1 Types of Safety Blood Collection Systems

The nurse and midwife should be familiar with the types of safety blood collection systems used in their organisation, which are outlined below.

<table>
<thead>
<tr>
<th>Butterfly Safety Blood Collection Set</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Butterfly Safety Blood Collection Set allows for blood aspiration from patients with very fine and fragile veins. The butterfly safety blood collection set can be used as an aspiration method or vacuum method.</td>
</tr>
<tr>
<td>It is best used in the dorsal venous network of the hand and the cephalic and basilic veins of the forearm. This method provides the best option for patients with problematic, fragile and delicate veins.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Monovette System</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Monovette System can be used as an aspiration method and/or a vacuum method. Components in the system include:</td>
</tr>
<tr>
<td>- Multi-sampling needles with pre-assembled holders</td>
</tr>
<tr>
<td>- Needle protection devices</td>
</tr>
<tr>
<td>- Series of specific bottles with caps of various colours which are unique to this system (The colours indicate the type of additives).</td>
</tr>
<tr>
<td>This blood collection system is suitable for all veins for venepuncture. It is also suitable for fragile veins.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Vacutainer and Vacuette Safety Blood Collection Systems</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Vacutainer and Vacuette Safety Blood Collection Systems use the vacuum method. This method allows for the automatic transfer of blood into the blood specimen bottles via a vacuum. There are a number of providers who offer a range of products that utilise the vacuum method and these products vary across organisations.</td>
</tr>
<tr>
<td>It is recommended for the prominent veins in the antecubital fossa area (median cubital vein). Use with caution on fragile veins as it may cause them to collapse.</td>
</tr>
</tbody>
</table>

4.6.2 Types of Blood Collection Bottles and Tubes

The blood collection bottles and tubes will vary depending on the safety blood collection system utilised. The nurse or midwife should be familiar with the types of blood collection bottles and tubes used in this organisation.

4.7 Recommended Order of Draw

The order of blood draw is the sequence in which blood collection bottles should be filled. The needle which pierces the bottle can carry additives from one bottle into the next, and so the sequence of draw is standardised so that any cross-contamination of additives will not affect laboratory results.

The general principles applied to the order of blood draw are:

- 1<sup>st</sup>: Samples – no additives
- 2<sup>nd</sup>: Samples – anti coagulants
- 3<sup>rd</sup>: Samples – additives  (WHO, 2002)
4.8 Procedure

The venepuncture procedure follows aseptic principles, using a non touch technique. **Two** attempts **ONLY** should be made at the venepuncture cannulation. If unsuccessful refer to another practitioner. Single use closed safety blood collection systems (sanctioned for use locally) are recommended for use in accordance with manufacturer’s instructions. The venepuncture procedure for adults is specified in appendix i.

4.9 Management of Complications

Potential problems such as patient fear and anxiety, inability to draw blood or cessation of blood flow may arise and it is important to know how these may be overcome. Complications such as haematoma, phlebitis, nerve injury, arterial puncture, venous spasm and/or needle stick injury can occur and it is important that the nurse or midwife is able to recognise treat and /or prevent them. It is critical for the nurse to detect and prevent complications arising. It is especially important for patient’s who may not be able to verbalise pain. Please see appendix ii for more information on complications.
5.0 Documentation

The nurse or midwife must be familiar with the documentation required for the venepuncture procedure. A requisition form must accompany blood samples submitted to the laboratory. The requisition form must contain the proper information in order to process the specimen.

The essential elements of the requisition form include the:

- Surname, first name, and middle initial
- Date of birth and sex
- Identification number
- Diagnosis or symptoms
- Complete name of healthcare professional requesting test
- Date of venepuncture procedure
- Indication of the blood test(s) requested
- Location (for example, ward, department, address)

6.0 Implementation Plan

The Director of Nursing and Midwifery is responsible for the dissemination, implementation and ongoing evaluation and audit of this policy within this organisation.

7.0 Evaluation and Audit

Evaluation will include a

- Mechanism for recording, reviewing and acting on adverse venepuncture incidents
- System for maintaining practitioner competence
- Method for identifying further training needs
References

A Guiding Framework for Education, Training and Competence Validation in Venepuncture and Peripheral Intravenous Cannulation for Nurses and Midwives

Resources

• Health Information and Quality Authority (2009) National Standards for the Prevention and Control of Health Care Associated Infections. HIQA: Dublin
• Health Service Executive South Eastern Area (2007) Guidelines for Nursing/Midwifery Staff Undertaking Peripheral Intravenous Cannulation and/or Venepuncture in Children. Health Service Executive South Eastern Area.
• National Health Service of United Kingdom, National Patient Safety Agency: http://www.npsa.nhs.uk/
• National Health Service of United Kingdom, The Health and Safety Executive: http://www.hse.gov.uk/
Appendix i
Venepuncture Procedure-Adult

The venepuncture procedure follows aseptic principles using a non touch technique.

In undertaking the procedure, it is important that only the equipment required is brought to the bedside. This is to ensure that cross-contamination does not occur, increasing the risk to other patients.

Equipment required should be based on an assessment of the patient and is as follows:

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<thead>
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*As per Standard Precautions, the use of a plastic apron and/or face protection should be assessed by each Health Care Worker based on the risk of blood splashing or spraying during the procedure.

**Range and type of equipment may vary depending on local organisational policy
Venepuncture Procedure - Adult

Prior to Procedure

- Confirm indication for procedure, checking requisition forms for specific blood tests required
- Disinfect a clean clinical tray, using 70% alcohol or equivalent as per local guidelines
- Collect the appropriate equipment and inspect it’s integrity

At the Bedside

- Carry out hand hygiene for a minimum of 15 seconds and apply apron. Locate the patient and check their identification
- Explain the procedure, check for allergies and discuss pain relief
- Obtain informed consent
- Ensure the patient is in a comfortable position
- Apply the tourniquet (5/6cms above chosen site) and tighten slowly (Do not leave on for longer than one minute)
- Ask the patient to open/close fist and keep fist closed or place arm below heart level to encourage venous filling
- Palpate the site to check for rebound elasticity - press lightly with two fingers and release
- Choose the appropriate vein

Preparation

- Decontaminate hands using alcohol hand rub/gel, allow to dry
- Apply gloves (face protection if required)
- Open the sterile gauze using the packaging as the sterile field
- Place disposable non sterile sheet under the patient’s arm (optional)
- Disinfect the site using skin disinfectant (70% impregnated alcohol wipes. Disinfect in a circular motion from insertion site outwards (5-10cms diameter)
- Place the used alcohol wipes in the clinical tray ensuring not to contaminate the sterile swabs
- Allow to air dry, do not repalpate the site

Venepuncture

- Open and assemble the appropriate blood collection set
- Use your non dominant hand to achieve skin traction
- Hold the blood collection set between your thumb and index finger
- Position the needle-facing bevel upwards
- Insert the needle, directly above the vein, through the skin (angle 10-30 degrees)
- When the needle punctures the vein, observe for flashback in the chamber of the blood collection set (butterfly system only). The flashback is not evident when using a tube holder and 21/22 gauge needle (Vacuum method).
- Decrease the angle between the needle and the skin
• When using the tube holder and needle (Vacuum method), anchor the tube holder securely, using your thumb and index finger
  o Using your thumb, gently but firmly push the blood collection bottle onto the interior needle and allow the blood collection bottle to fill to the appropriate level
• When using the monovette aspiration system, pull the plunger back slowly until the blood bottle is filled
• When using the butterfly system, draw a discard bottle first, as air from the blood collection tubing will cause underfilling of the bottle
• When multiple blood tests are required, ensure the blood tests are taken in the proper order of draw
• Loosen and release the tourniquet
• Invert bottles gently four to five times to mix appropriately, Do Not shake bottles
• Apply sterile gauze over the puncture site, and remove the needle activating the needle safety device
• Place the blood collection set into the sharps box
• Maintain digital pressure on the puncture site to prevent blood leakage
• Arm can be elevated while applying pressure to prevent haematoma formation but do not bend the arm
• Discard the blood contaminated gauze in the clinical tray
• Apply sterile dressing or plaster over the puncture site.
• Remove gloves and place in kidney dish
• Carry out effective hand hygiene for a minimum of 15 seconds (alcohol hand rub/gel)

After Care

• Inform the patient of potential complications and advise to report same
• Ensure the patient is in a comfortable position and reassure
• Document the procedure, communicate and inform relevant staff
• Apply alcohol hand rub/gel, allow to dry
• Apply gloves and ensure blood collection bottles and requisition forms are correctly labelled. New gloves are required for healthcare worker safety and to prevent any contamination of forms and bottles.
• Place all blood collection bottles and forms into the biohazard bag and send to the laboratory as per local practice
• Bring tray with used items to the dirty utility
  o Dispose of healthcare risk and non risk waste appropriately
  o Clean and disinfect the clinical tray
  o Clean and disinfect reusable eye shield as per manufacturer’s instructions if applicable
  o Remove gloves and apron and carry out appropriate Hand Hygiene.
## Appendix ii

### Potential Complications for the Venepuncture Procedure

<table>
<thead>
<tr>
<th>Venous Spasm</th>
<th>Venous spasm is a sudden involuntary contraction of the vein, resulting in temporary cessation of blood flow in the vein.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cause</strong></td>
<td>• Venous spasm is caused by fear and anxiety and is usually stimulated by cold infusates and mechanical or chemical irritation</td>
</tr>
</tbody>
</table>
| **Signs**    | • Expressions of pain  
• Cramping  
• Numbness above the venepuncture site |
| **Prevention** | • Explain the procedure to reduce fear and anxiety |
| **Treatment** | • Gently massage or warm the limb and retry  
• Slow down the process of venepuncture (there is no need to remove the needle)  
• Wait for the vein to relax before proceeding |

<table>
<thead>
<tr>
<th>Haematoma</th>
<th>Haematoma is the formation of a painful and hard swelling at the venepuncture site.</th>
</tr>
</thead>
</table>
| **Cause** | • Leakage of blood at the site of the venepuncture, may collect as a haematoma  
• Inappropriate use of a small fragile vein, or too large a needle  
• Excessive probing to find the vein  
• Removing the needle prior to releasing the tourniquet  
• The needle going all the way through the vein  
• The needle only partially entering the vein, allowing leakage |
| **Signs** | • Expressions of pain, loss of mobility or reluctance to move the affected limb  
• Swelling, discolouration or coolness of the area adjacent to the puncture site |
| **Prevention** | • Selection of appropriate equipment for the size of the vein  
• Skilled technique |
| **Treatment** | • Release the tourniquet, remove the needle and apply pressure until haemostasis has been achieved  
• Elevate the limb and apply a cool compress if necessary, avoiding an ice burn  
• Apply a pressure dressing if bleeding is persistent  
• Explain what has happened and request that staff are informed if the area becomes more painful as the haematoma may be pressing on a nerve  
• Do not reapply the tourniquet to the affected limb  
• Request a medical review, if required  
• Monitor, treat as prescribed and document in the nursing care plan  
• Report the occurrence of this complication, as per local organisational policy |
## Phlebitis

Phlebitis is an acute inflammation of the intima of a vein (Dougherty, 2008).

### Cause
- Localised infection or irritation of the vein caused by the introduction of the venepuncture needle (mechanical phlebitis)

### Signs
- Expressions of pain (verbal or non-verbal)
- Loss of mobility or reluctance to move the affected limb
- Redness, inflammation, or purulent ooze at the venepuncture site

### Prevention
- Early detection is crucial, with regular monitoring required

### Treatment
- Observe and monitor the venepuncture site
- Assess the degree of phlebitis
- Take a swab of the site for culture and sensitivity
- Clean and apply a dressing, to the affected area and administer analgesia as prescribed
- Report the incident of this complication
- Treat as prescribed and document the care given

## Nerve Injury

Nerve injury is an inadvertent injury to the nerve.

### Cause
- Inappropriate selection of the venepuncture site
- Poor technique

### Signs
- Pain described as an ‘electrical shock’ or a ‘pins and needles’ sensation
- Loss of mobility or reluctance to move the affected limb

### Prevention
- Appropriate clinical assessment
- Appropriate site selection
- Skilled technique

### Treatment
- Release the tourniquet, remove the needle and apply gentle pressure
- Explain and reassure the patient about what has occurred
- Advise that any symptoms of altered sensation may persist for a few hours
- Arrange a medical review, if required
- Monitor, treat as prescribed and document in the nursing care plan
- Finally, report the occurrence of this complication, as per local organisational policy
### Arterial Puncture

**The inadvertent puncture of the artery is another complication associated with venepuncture.**

| Cause | • Inappropriate selection of the venepuncture site  
|       | • Poor technique |
| Signs | • Presence of bright red blood  
|       | • Expressions of pain |
| Prevention | • Appropriate clinical assessment  
|       | • Appropriate site selection  
|       | • Skilled technique |
| Treatment | • Release the tourniquet, removing the needle immediately and apply pressure until haemostasis has been achieved  
|       | • Explain and reassure regarding what has happened  
|       | • Request that a member of staff is informed if bleeding recurs from the puncture site, if pain continues or if there is increasing swelling or bruising  
|       | • Arrange a medical review  
|       | • Monitor, treat as prescribed and document in the nursing care plan  
|       | • Report the occurrence of this complication, as per local organisational policy |

### Needle Stick Injury

**A needle stick injury (percutaneous inoculation injury) is an inadvertent puncture of the skin with a potentially contaminated needle.**

| Cause | • Inadvertent puncture of the skin during the venepuncture procedure |
| Signs | • Pain  
|       | • Bleeding  
|       | • A visible puncture of the skin of the nurse or midwife |
| Prevention | • The application of Infection Prevention & Control and Health and Safety Policy will support safe practice |
| Treatment | • Encourage the wound to bleed freely (do not suck the wound)  
|       | • Wash the affected area with liquid soap under running water  
|       | • Apply a waterproof dressing over the affected area  
|       | • Report the incident to your line manager  
|       | • Record the incident accordingly by completing the relevant incident form  
|       | • Submit the incident form to your risk manager or line manager  
|       | • For follow-up and advice, contact your Occupational Health Dept and/or the Accident and Emergency Dept as per local organisational policy |