# Unit 99: Peripheral Intravenous Cannulation

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| **Level:** | **5** |
| **Unit type:** | **Optional (Cardiac Physiology)** |
| **Credit value:** | **5** |
| **Guided learning hours:** | **40** |

## Unit summary

In this unit, you will gain the knowledge, understanding and skills required for the insertion of peripheral intravenous cannulae. This procedure could be done as part of any scientific procedure such as autonomic testing and ocular angiography, to assist and support the healthcare science practitioner/clinical scientist in performing quality-assured, safe, autonomic science investigations by being able to insert peripheral intravenous cannulae. This is an invasive procedure, with associated risks. Complications can cause considerable pain and discomfort to the individual; correct technique, high standards of compliance and Standard Operating Procedures need to be applied. You will be expected to build your patient-centred professional practice to undertake this skill safely in the workplace.

You may have to attend a training course in your own organisation that will provide the underpinning learning for this unit. The policy of your own trust must be adhered to when performing cannulation.

## Unit assessment requirements

There are no specific assessment requirements for this unit. Please refer to the assessment strategy in *Annexe B*.

## Additional information

**It is suggested that learners will have completed the following unit:**

- **Level 3 Unit 63: Obtain Venous Blood Samples**

**or have appropriate experience before completing this unit.**

All procedures must be undertaken in accordance with the Standard Operating Procedures (SOPs) in own area of practice.

AC1.1 includes:

- administration of intravenous drugs
- blood sampling to aid diagnosis and treatment.

AC2.3 includes:

- consent when an individual lacks mental capacity
- legal action that can be taken if you fail to obtain consent.

AC3.1 includes:

- occupational exposure to blood or body fluids incident is defined as: inoculation with an instrument such as a needle or scalpel blade that has been contaminated with blood or other body fluid, or blood or body fluid splashed into the eye or onto a mucous membrane or (onto) skin surface that has an open cut or abrasion.

AC3.7 includes:

- eliminating or substituting sharps (eliminates unnecessary injections)
- using engineering controls (auto-disable syringes, safer needle devices)
- training in the use of safety engineered devices
- adopting administrative and work practice controls (standard precautions; no recapping provision and placement of sharps containers)
- wearing personal protective equipment (PPE) (e.g., gloves, goggles).

AC4.2 includes individuals who:

- are immunocompromised
- are critically ill
- are very young
- have a haematological malignancy
- are receiving chemotherapy.

AC4.3 includes:

- hand hygiene
- aseptic technique
- personal protective equipment (PPE)
- skin preparation
- dressing and secure device
- correct disposal of sharps and waste
- documentation.

AC4.4 includes:

- coagulase negative staphylococci (35%)
- Staphylococcus aureus (25%) (DTB 2001)
- methicillin-resistant Staphylococcus aureus (MRSA) accounted for 40–45% of Staphylococcus aureus (Smyth 2006)
- less commonly isolated organisms are:
    - gram-negative rods
    - Candida albicans.

AC4.5 includes:

- always
- never
- touch
- take.

AC4.6 includes:

- vasovagal
- anxiety
- pain
- haematoma
- thromboembolism
- air embolism
- thrombophlebitis
- blood spurt on entry
- no flashback seen
- mobile veins
- mechanical irritation
- infection
- dressings.

AC5.2 includes:

- the
- veins
- site and indication
- local Standard Operating Procedure.

AC5.3 includes:

wearing eye protection if there is a clear chance of splash or spray., possible exposure to blood and bodily fluids.

## Learning outcomes and assessment criteria

To pass this unit, learners need to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements that the learner is expected to meet **in own area of work and in accordance with Standard Operating Procedures (SOPs)** to achieve the learning outcomes and the unit.

| Learning outcomes | | Assessment criteria | | Evidence type | Portfolio reference | Date |
|---|---|---|---|---|---|---|
| 1 | Understand the principles and practice of peripheral intravenous cannulation as part of autonomic testing | 1.1 | Explain the indications for peripheral intravenous cannulation as part of an investigation being undertaken | | | |
| | | 1.2 | Explain the local guidelines for peripheral intravenous cannulation | | | |
| 2 | Understand own professional responsibilities when performing peripheral intravenous cannulation | 2.1 | Explain own scope of practice in the context of performing peripheral intravenous cannulation | | | |
| | | 2.2 | Explain the risks and benefits of peripheral intravenous cannulation | | | |
| | | 2.3 | Explain the process of gaining informed consent | | | |
| | | 2.4 | Explain own responsibilities for recording for the cannulation process | | | |

| Learning outcomes | | Assessment criteria | | Evidence type | Portfolio reference | Date |
|---|---|---|---|---|---|---|
| 3 | Understand safe working practices when performing peripheral intravenous cannulation | 3.1 | Explain the term occupational exposure to blood or body fluids | | | |
| | | 3.2 | Explain policy of own organisation for dealing with sharps and other occupational exposure to blood and bodily fluids | | | |
| | | 3.3 | Explain the actions that must be taken following an occupational exposure | | | |
| | | 3.4 | Explain the role of senior colleagues for subsequent actions | | | |
| | | 3.5 | Explain the importance of risk assessment for possible exposure to blood and body fluids | | | |
| | | 3.6 | Explain the importance of wearing personal and protective equipment | | | |
| | | 3.7 | Explain strategies for reducing sharps incidents | | | |

| Learning outcomes | | Assessment criteria | | Evidence type | Portfolio reference | Date |
|---|---|---|---|---|---|---|
| 4 | Understand the importance of infection control when performing peripheral intravenous cannulation | 4.1 | Explain how cannulae can become infected | | | |
| | | 4.2 | Describe patients who are most at risk of Bacteraemia | | | |
| | | 4.3 | Explain the actions that can be taken to reduce the risk of infection | | | |
| | | 4.4 | Discuss the most commonly isolated organisms from all types of intravenous cannulae | | | |
| | | 4.5 | Explain the four main principles involved in aseptic non-touch technique | | | |
| | | 4.6 | Explain the potential complications of intravenous cannulation | | | |

| Learning outcomes | | Assessment criteria | | Evidence type | Portfolio reference | Date |
|---|---|---|---|---|---|---|
| 5 | Be able to perform cannulation in accordance with Standard Operating Procedures for the relevant investigations | 5.1 | Outline the veins and nerves of the hand and arm | | | |
| | | 5.2 | Explain how to select the right size of cannula | | | |
| | | 5.3 | Carry out risk assessment of all tasks required for cannulation | | | |
| | | 5.4 | Explain the procedure to the patient, gain and document informed consent | | | |
| | | 5.5 | Prepare for the procedure using an aseptic technique | | | |
| | | 5.6 | Select the cannula and site of cannulation for the relevant investigation | | | |
| | | 5.7 | Insert the cannula and flush | | | |
| | | 5.8 | Stabilise the cannula | | | |
| | | 5.9 | Dispose of sharps safely at the point of use | | | |
| | | 5.10 | Complete documentation, including cannula insertion record | | | |

Learner name: _____ Date: _____

Learner signature: _____ Date: _____

Assessor signature: _____ Date: _____

Internal verifier signature: _____ Date: _____
(*if sampled*)