

Obtaining a venous blood sample

About this workforce competence

This workforce competence covers the issue of obtaining a venous blood sample from a patient. The key tasks include correctly identifying the patient, completing and understanding the minimum requirements on the blood sample request form and knowing how to correctly label a blood sample.

This workforce competence is not intended to cover the collection, receipt and administration of blood/blood products. These competences are covered in the following documents which have been developed as part of this work package:

- BDS17: Organise the receipt of blood/blood products for transfusion
- BDS18: Collect blood/blood components for transfusion
- BDS19: Prepare to administer transfusion of blood/blood products to patients
- BDS20: Administer a transfusion of blood/blood products

Links

This workforce competence is linked to the following dimensions and levels in the NHS Knowledge and Skills Framework (October 2004)

Dimension: HWB6 – Assessment and treatment planning related to the structure and function of physiological and psychological systems.

Level: 1

Origin

This workforce competence has been developed by the National Patient Safety Agency (NPSA), in collaboration with Skills for Health. The NPSA is currently working towards ensuring that the competencies receive endorsement from Skills for Health and are displayed on their website in 2007.

Glossary

This section provides explanations and definitions of the terms used in this workforce competence. In competences it is quite common to find words or phrases used which you will be familiar with but which, in the detail of the competence, may be used in a very particular way.

Additional protective equipment	includes types of personal protective equipment such as visors, protective eyewear and radiation protective equipment.
Contaminated	includes items contaminated with body fluids, chemicals or radionuclides – any pack opened and not used should be treated as contaminated.
Individual	the person from whom the venous blood sample has been obtained – this can include blood donors or prospective donors, and clients/patients in other care settings.
Blood sample request and/or order form	denotes the term used for the documentation on which the blood sample has been ordered/ prescribed – this will vary across care settings and environments such as the hospital and community settings.
Personal protective clothing	includes items such as plastic aprons, clean and sterile gloves, footwear, dresses, trousers, shirts and all-in-one trouser suits – these may be single-use disposable clothing or reusable clothing.

Scope

This section provides guidance on possible areas to be covered in this workforce competence.

Adverse reaction/event	Includes those that relate to: <ul style="list-style-type: none">a) misidentification of patients because multiple patients are being bled simultaneously/venous samples are taken simultaneouslyb) ABO incompatible blood transfusions
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- c) using non-sterile equipment
 - d) allergy
- Appropriate action includes:**
- a) ensuring the correct blood sample is taken from the correct patient
 - b) bleeding one patient at a time
 - c) completing all documentation throughout the sampling process
 - d) completing all checks throughout the sampling process
- Blood collection system includes:**
- a) sample request form
 - b) needles and syringes or systems that collect directly into the sample tube
 - c) labels, if required, for blood sample
- Dressing** Includes:
- a) standard sticking plaster
 - b) hypoallergenic sticking plaster
 - c) dressing and gauze
- Materials and equipment** Include:
- a) those for preparing and caring for the venous access site
 - b) documentation, labelling and patient identification (wristband)
 - c) needles and syringes/vacu-containers
 - d) packaging and tourniquet
- Packaging** Includes clear plastic bag
- Standard precautions and health and safety measures** A series of interventions which will minimise or prevent infection and misidentification including:
- a) hand washing/cleansing before, during and after the activity
 - b) the use of personal protective clothing and additional protective equipment when appropriate
- It also includes:
- a) ensuring only one patient is bled at any one time
 - b) ensuring correct and complete labelling of blood samples
 - c) disposing of waste including sharps

d) safe moving and handling techniques

e) untoward incident procedures

Tourniquet

Includes re-useable and disposable tourniquets specifically designed for the purpose

Performance Criteria

You need to:

1. apply standard precautions for taking a blood sample from an individual including:
 - correctly identifying and completing/checking the minimum data requirements for the venous blood sample request form. Minimum data requirements are as follows: ensure that the blood sample request form contains the following information: the individual's full name, date of birth, gender, hospital number/other number, your signature, printed name, role and contact details
 - demonstrates an understanding that only one patient should be bled at a time and why this is a safe approach to practice (i.e. that it reduces the risk of a patient identification error occurring and also the risk of mixing samples up)
 - knows how to correctly identify the patient, including where there are special circumstances, for example, those who are unconscious, have cognitive impairment, or cannot verbally confirm their patient details, i.e. are confused or infants
2. applies standard precautions for infection control and any other relevant health and safety measures
3. understand the other types of information that should be on the request form including; location, number and type of products requested, diagnosis/reason for the request and past transfusion, relevant medical or obstetric history (where appropriate)
4. ensure the venous blood sample is being taken from the correct patient by asking the patient to state their name and date of birth. It is important to ask open questions and to verify the reply against relevant patient identifiers (i.e. a wristband, patient's case notes, sample request form). Then (for inpatients) check that the information provided is consistent with what is written on the patient's wristband/patient's case notes/venous blood sample request form
5. ensure there is an accurate match between the information provided by the patient and the information on the wristband/blood sample request form/patient's case notes
6. comply with the trust's policy on appropriate ways to identify the following groups of patients: unconscious patients, unknown patients, neonates, patients

unable to verbally identify themselves for whatever reason, i.e. neonates, young children or confused individuals. For these groups of patients it is important to match the wristband with the request form information to check that this is the right person and that all written details are correct

7. know what action to take in the event that a patient is unable to verbally identify themselves and there is no wristband in situ
8. once identification has been completed, give an explanation of the procedure and obtain the patient's consent
9. complete hand cleaning procedures and wear gloves and an apron
10. identify an appropriate vein for venepuncture
11. prepare the patient's skin (according to local policy) immediately before obtaining the blood sample
12. apply, use and release a tourniquet at appropriate stages of the procedure
13. gain venous access using the selected blood collection system, in a manner which will cause minimum discomfort to the individual
14. obtain blood from the selected site:
 - in the correct container for the blood sample
 - in the correct volume
 - in the correct order when taking a blood sample alongside other sampling procedures
15. take appropriate action to stimulate the flow of blood if there is a problem obtaining blood from the selected site, or choose an alternative site
16. mix the blood and anti-coagulant gently and thoroughly when anti-coagulated blood is required
17. promptly identify any indication that the individual may be suffering any adverse reaction to the venepuncture procedure and act accordingly
18. remove final sample tube required and tourniquet before removing the needle
19. remove blood collection equipment and stop blood flow with sufficient pressure at the correct point and for the sufficient length of time to ensure bleeding has stopped
20. apply a suitable dressing to the puncture site according to the guidelines and/or procedures, and advise the individual about how to care for the site
21. hand label blood samples clearly, accurately and legibly, unless using a computer prepared label generated by a bar-coding system. This should be done immediately, at the patient's bedside and by the person taking the sample. This includes full name, date of birth, hospital number, gender, date

- and signature of the person who has taken the blood sample to acknowledge responsibility
22. requests for blood products should include information on the patient's transfusion history and special requirements, e.g. irradiated, CMV negative
 23. place sample/s in the appropriate packaging and ensure the correct request forms are attached
 24. place sample/s in the nominated place for collection and transportation, ensuring the sample/s are kept at the required temperature to maintain integrity
 25. document all information clearly, accurately and correctly in the appropriate records
 26. ensure immediate transport of the sample/s to the relevant department when blood sampling and investigations are urgent
 27. record appropriate information in the patient's case notes

Knowledge and understanding

You need to apply:

Legislation, policy and good practice

- K1. A factual knowledge of the current European and national legislation, national guidelines and local policies and procedures which affect your work practice in relation to obtaining a venous blood sample
- K2. A working knowledge of your responsibilities and accountability in relation to the current European and national legislation, national guidelines and procedures
- K3. A working knowledge of the importance of obtaining positive confirmation of an individual's identity and consent before starting the procedure, and effective ways of getting positive identification
- K4. A factual knowledge of the importance of working within your own sphere of competence and seeking advice when faced with situations outside your sphere of competence
- K5. A working knowledge of the importance of applying standard precautions and the potential consequences of poor practice
- K6. A working knowledge of how infection is spread and how its spread may be limited – including how to use or apply the particular infection control measures needed when working with blood
- K7. A working knowledge of the adverse events or patient safety incidents which can arise from taking venous blood samples including the potential consequences of trying to bleed more than one patient at a time, misidentifying individuals at the bedside, incorrectly labelling blood samples (i.e. delayed or incorrect test results or cross match for a particular individual) and failing to complete written documentation legibly and accurately

Anatomy and physiology

- K8. A factual knowledge of the structure of blood vessels
- K9. A factual knowledge of the position of accessible veins for venous access in relation to arteries, nerves and other anatomical structures
- K10. A factual knowledge of blood clotting processes and factors influencing blood clotting

Care and support

- K11. A working knowledge of the extent of the action you can take, which includes any information you may give, particularly in relation to clinical issues
- K12. A working knowledge of the contra-indications and changes in behaviour and condition, which indicate that the procedure should be stopped and advice sought
- K13. A working knowledge of the concerns which patients may have in relation to you obtaining venous blood
- K14. A working knowledge of how to prepare patients for obtaining venous blood, including how their personal beliefs and preferences may affect their preparation
- K15. A working knowledge of what is likely to cause discomfort to individuals during and after obtaining venous blood, and how such discomfort can be minimised
- K16. A working knowledge of common adverse reactions/events to blood sampling, how to recognise them and the actions to take if they occur
- K17. A working knowledge of the human errors and systems problems which lead to misidentification of patients for blood sampling including omitting bedside checks, poor written and verbal communication, time pressure, high workload and distractions/interruptions during tasks

Procedures and techniques

- K18. A working knowledge of the factors to consider in selecting the best site to use for venous access
- K19. A working knowledge of the equipment and materials needed for venepuncture/phlebotomy and how to check and prepare blood collection systems
- K20. A working knowledge of the importance of ensuring venous access sites are cleaned effectively and how, and when, this should be done
- K21. A working knowledge of the correct use of tourniquets
- K22. A working knowledge of the importance of correctly and safely inserting needles/cannulae
- K23. A working knowledge of how to recognise arterial puncture, and the action to take if this occurs

- K24. A working knowledge of the factors involved in the procedure which could affect the quality of the sample
- K25. A working knowledge of the remedial actions you should take if there are any problems identifying the patient
- K26. A working knowledge of the complications and problems that may occur during venepuncture, how to recognise them and what actions to take
- K27. A working knowledge of when and how to dress venous puncture sites

Reporting, recording and documentation

- K28. A working knowledge of the information that is required to be recorded on the blood sample request form
- K29. A working knowledge of the information that is required to be recorded on the blood sample label and where and who should complete it
- K30. A working knowledge of the importance of completing labels and documentation clearly, legibly and accurately
- K31. A working knowledge of the importance of immediately reporting any issues which are outside your own sphere of competence without delay to the relevant member of staff