

CHS24 Carry out arterial puncture and collect arterial blood

OVERVIEW

This standard covers obtaining arterial blood samples by arterial puncture. This would normally be an investigative procedure, and may be performed in respiratory laboratories, in hospital, and in outpatient clinics. It would not be performed in the individual's home. The procedure will be performed with adults and children and with individuals in critical care areas such as intensive care units. It may include the use of a range of equipment, blood collection systems and techniques relating to arterial sites. Users of this standard will need to ensure that practice reflects up to date information and policies. Version No 1

KNOWLEDGE AND UNDERSTANDING

You will need to know and understand:

1. The current European and National legislation, national guidelines, organisational policies and protocols in accordance with Clinical/Corporate Governance which affect your work practice in relation to carrying out arterial puncture and collecting arterial blood
2. Your responsibilities and accountability in relation to the current European and National legislation, national guidelines and local policies and protocols and Clinical/Corporate Governance
3. The duty to report any acts or omissions in care that could be detrimental to yourself, other individuals or your employer
4. The importance of working within your own sphere of competence when and seeking advice when faced with situations outside your sphere of competence
5. The importance of applying standard precautions to carrying out arterial puncture and collecting arterial blood specimens and the potential consequences of poor practice
6. The relevance and importance of valid consent to the collection of arterial blood samples
7. The types and categories of risks which may be involved when performing arterial puncture and their implications
8. The clinical indications infection at the puncture site and the actions appropriate to preventing spread and discomfort
9. The importance of correctly identifying the individual's current level of oxygen intake and its impact upon the arterial puncture process
10. The sites for arterial puncture and the factors associated with selection

11. Different types of blood collection equipment and factors affecting choice of equipment for collecting arterial blood specimens
12. The approved methods of checking that administered local anaesthetic has been effective
13. How to position and support the individual correctly for arterial puncture
14. Methods of stopping arterial blood flow effectively prior to collection of arterial blood
15. The importance of correct insertion and positioning of blood collection equipment
16. The importance of avoiding blockage in the blood collection equipment and how to ensure that this does not occur
17. The importance of avoiding damage to surrounding blood vessels and how you can ensure that this does not occur
18. The importance of and the methods for avoiding infection at puncture sites
19. The importance of correctly recording your activities including type of blood collection system used and puncture site
20. The reasons for and importance of:
 1. accurately labelling arterial blood specimens
 2. ensuring immediate dispatch to the laboratory
21. The importance of immediately reporting any issues which are outside your own sphere of competence without delay to the relevant member of staff

PERFORMANCE CRITERIA

You must be able to do the following:

1. apply standard precautions for infection prevention and control and other appropriate health and safety measures
2. check the individual's identity and confirm the planned activity
3. give the individual relevant information, support and reassurance in a manner which is sensitive to their needs and concerns
4. gain valid consent to carry out the planned activity
5. select and prepare the site for the arterial puncture following agreed protocols
6. insert the blood collection equipment at correct site
7. avoid blockage of the artery or damage to the central or surrounding blood vessels
8. obtain the arterial blood sample in the correct volume and of suitable quality for purpose
9. stop the blood flow by applying sufficient pressure at the correct pressure point and for a sufficient timescale to ensure haemostasis
10. seek immediate assistance where remedial action required is beyond your own level of competence
11. immediately report any condition or behaviour which may signify adverse reactions to the procedure and take appropriate action
12. accurately label the collected arterial blood sample, complete the required documentation requesting analysis and place in the appropriate position for immediate collection
13. document arterial blood collection procedure in accordance with patient records procedures

ADDITIONAL INFORMATION

This National Occupational Standard was developed by Skills for Health. This standard links with the following dimension within the NHS Knowledge and Skills Framework (October 2004): Dimension: HWB7 Interventions and treatments. This standard has replaced HCS_PH03.