STANDARD OPERATING PROCEDURE

NIHR Sheffield Clinical Research Facility

Venepuncture using Vacutainer

SOP History
V1.4 (21/05/2013) reviewed by Michael Agyemang, V1.3 (19/04/2011) reviewed by Mary Stringer, V1.2 (20/01/2009)

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Standard Operating Procedure: NIHR Sheffield Clinical Research Facility
Venepuncture using Vacutainer

This SOP has been written to give general guidance to study personnel on performing venepuncture. There are no GCP Guidelines concerning venepuncture.

Background

It is important that all staff in the CRF perform venepuncture to Sheffield Teaching Hospitals NHS Foundation Trust standards to ensure participant and staff safety.

Definition

Venepuncture is the term used for the procedure of entering a vein with a needle. Venepuncture is carried out for 2 reasons:
1. To obtain a blood sample of diagnostic purpose.
2. Monitor levels of blood components.

Procedure

1. The investigator is responsible for performing venepuncture according to protocol. This duty can be delegated to other appropriately qualified members of the research team as recorded on the Project Delegation Log.

2. Prior to the procedure the investigator or delegated person must ensure the correct participant is identified and cross referenced with appropriate request forms. The areas to be checked are surname, forename, date of birth, research study name and if appropriate, hospital registration number and current address.

3. The investigator or delegated person must perform the procedure in accordance with the trust relevant Health and Safety Policy.

4. The investigator or delegated person must ensure constant attention to the appropriate aseptic technique whilst procedure is being performed.

5. The investigator or delegated person will refer to the protocol to ensure specific requirements for performing venepuncture are identified.

6. The investigator or delegated person must ensure that the patient has been prepared for any specific blood tests, e.g. fasting bloods.

7. The investigator or delegated person will explain the procedure to the participant.

8. The investigator or delegated person should ensure the participant has had no previous problems when having blood taken and if they have any known allergies to tape.

9. The investigator or delegated person should wash their hands according to STHFT Hand Hygiene Policy.

10. The investigator or delegated person will clean and prepare trolley/work area.
11. The investigator or delegated person will prepare all equipment required ensuring all study specific equipment is obtained.

   Equipment required:
   - Sharps bin
   - Vacutainer® needle
   - Vacutainer® body
   - Vacutainer® bottles
   - Bottle stand
   - Mediswab®
   - Cotton wool swab
   - Micropore® tape (check for known allergies)
   - Non-sterile gloves (check for latex allergies)
   - Tourniquet
   - Trolley

12. The investigator or delegated person will ensure all study specific documentation is prepared and any local request forms are completed.

13. The investigator or delegated person must wash their hands according to STHFT Hand Hygiene Policy and check for broken skin and cover with waterproof dressing.

14. The investigator or delegated person will apply gloves.

15. The investigator or delegated person will loosely apply tourniquet. Position of the tourniquet may be varied depending on where the sample is to be obtained from.

16. The investigator or delegated person will ask the participant to rest their arm on an arm rest (if available) or place a pillow under their elbow.

17. The investigator or delegated person will tighten the tourniquet and assess the patients arm for suitable veins. If necessary, access the participants other arm until a suitable vein is identified.

18. The investigator or delegated person should not make more than 3 attempts to obtain a venous sample.

19. The investigator or delegated person must prepare participants skin with a mediswab for at least 30 seconds (allow the skin to dry). Do not repalpate the vein or touch the skin.

20. The investigator or delegated person will remove the vacutainer white sheath and dispose.

21. The investigator or delegated person should insert the vacutainer needle into vacutainer body and dispose.

22. The investigator or delegated person will remove green/blue/black shield and place into the receptacle.

23. The investigator or delegated person must anchor the skin by applying manual traction a few centimetres below the proposed insertion site.
24. The investigator or delegated person must follow the line of the vein and insert the needle through the skin at an angle of 15 degrees, ensuring the eye of the needle is completely in the vein to prevent haematoma formation and/or blood leakage.

25. The investigator or delegated person must ensure the vacutainer body and needle is kept still, and attach the sample tubes as appropriate. If necessary, release tourniquet before all samples are taken.

26. Once all the samples are taken the investigator or delegated person will release the tourniquet if not already done.

27. The investigator or delegated person will place a cotton wool ball swab over the puncture site.

28. The investigator or delegated person must remove the needle and apply sufficient pressure to prevent bleeding (Do not apply pressure until the needle has been completely removed). If able, the investigator or delegated person can ask the participant to maintain pressure.

29. The investigator or delegated person must ensure that all sharps are disposed of immediately (without re-sheathing needle) into a sharps container in accordance with STHFT Waste Strategy & Policy.

30. If any blood spillage occurs the investigator or delegated person should clean up the spillage in accordance with STHFT Blood and Body Fluid Exposure Incident Management Pack.

31. The investigator or delegated person must mix all the specimens well if the specimens contain an additive or as dictated by the protocol.

32. The investigator or delegated person must inspect the puncture site before applying the dressing. The cotton swab should be taped down firmly.

33. The investigator or delegated person must ensure the participant is comfortable.

34. The investigator or delegated person must ensure all the samples are correctly labelled.

35. The investigator or delegated person will ensure all procedures for the obtained samples outlined in the study protocol are followed.

36. If the samples are for STH labs the investigator or delegated person must ensure prompt transport to the appropriate laboratories.

37. The investigator or delegated person must remove gloves and discard into appropriate clinical waste bag.

38. The investigator or delegated person must wash their hands in accordance with STHFT Hand Hygiene Policy.
### Related Documentation

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<tr>
<th>Document Name</th>
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<tr>
<td>Project Delegation Log</td>
<td>Project Delegation Log hyperlink</td>
<td>CRF</td>
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<tr>
<td>STH Hand Hygiene Policy</td>
<td><a href="http://www.sth.nhs.uk/STHcontDocs/STH_Pol/">http://www.sth.nhs.uk/STHcontDocs/STH_Pol/</a></td>
<td>STH Infection Control Team</td>
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<td>ClinicalGovernance/HandHygienePolicy.doc</td>
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<tr>
<td>STHFT Management of Health and Safety at Work Policy</td>
<td><a href="http://www.sth.nhs.uk/STHcontDocs/STH_Pol/">http://www.sth.nhs.uk/STHcontDocs/STH_Pol/</a></td>
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<td></td>
<td>HealthAndSafety/ManagementOfHealthAndSafetyAtWork.doc</td>
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<td>STHFT Infection control guidelines</td>
<td><a href="http://www.sth.nhs.uk/STHcontDocs/STH_CG/">http://www.sth.nhs.uk/STHcontDocs/STH_CG/</a></td>
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<td>STHFT venepuncture open learning programme</td>
<td><a href="http://www.sth.nhs.uk/NHS/LearningAndDevelopment/clinicalskills/default.htm">http://www.sth.nhs.uk/NHS/LearningAndDevelopment/clinicalskills/default.htm</a></td>
<td>STH Foundation Trust</td>
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<td>STHFT Policy for the Decontamination of Hospital Equipment &amp; Medical Devices</td>
<td><a href="http://www.sth.nhs.uk/STHcontDocs/STH_Pol/">http://www.sth.nhs.uk/STHcontDocs/STH_Pol/</a></td>
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<td>EstatesManagement/WasteStrategyAndPolicy.doc</td>
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1 Where a referenced document is unavailable electronically a hard copy may be requested from the document’s author or by contacting Sheffield Clinical Research Facility, O Floor, Royal Hallamshire Hospital, Glossop Road, Sheffield, S10 2JF, Tel: 0114 2713339.