



Clinical Relevance Of Microbleeds In Stroke

Blood sampling and transportation Standard Operating Procedure

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RATIONALE FOR TEST

The safe extraction of blood from participants involved with CROMIS-2 and preservation of DNA samples intended for genetic analysis. The safe and timely delivery of blood samples to the chief site (UCL Institute of Neurology, The National Hospital for Neurology and Neurosurgery, Queen Square, London, WC1N 3BG).

REQUIREMENTS

Practitioners taking blood should be GCP trained and on the delegation log to take blood samples. They should have sufficient experience and training according to local research governance procedures.

EQUIPMENT

2 X 4.7ml Purple top (EDTA) blood tubes

10mls Syringe a green/blue needle or Vacutainer system with butterfly needle attachment

Cotton Swab/Gauze

Alcohol Swab

Tourniquet

Plastic gloves

Royal Mail SAFEBOX for transport

2 x 4.7ml EDTA Blood PURPLE/PINK CAP



2 x 4.7ml EDTA purple blood tubes must be filled. Note: A large tube (“Group and Save”) is ideal to maximise the quantity and quality of DNA extracted.

Samples should be slowly inverted 8 to 10 times to ensure the mixing of the sample and the anti-coagulant liquid inside the tube.



Vacutainer System for taking blood

METHOD FOR BLOOD EXTRACTION

1. Obtain informed consent from patient or consultee / next of kin as per CROMIS-2 study protocol prior to blood taking.
2. Explain the procedure clearly to participant giving time for any questions, ensuring the patient is comfortable about the procedure.
3. Ensure all equipment is ready to hand in a tray next to the participant.
4. Identify a good-sized vein, usually in the antecubital fossae or on the dorsum (back) of the hand.
5. Apply a tourniquet proximal to the site of venepuncture to ensure engorgement of vein with blood.
6. Prepare a 10ml syringe with either a green or blue needle depending upon the size of the vein or prepare the Vacutainer with a butterfly needle. The type of device used to extract blood is dependent upon operator's preference.
7. Clean the site of venepuncture with an alcohol swab.
8. Insert needle into vein looking for blood flashback in the bevel of the syringe.

9. Gently withdraw approximately 10mls of blood into the syringe or alternatively place purple EDTA tubes into the Vacutainer to allow self-filling of blood.
10. Once enough blood has been withdrawn, undo the tourniquet with the needle still in place.
11. Take cotton swab and place over site of needle insertion (Venepuncture) and gently remove the needle.
12. Apply direct pressure with the cotton swab over the puncture site to stem any bleeding. This should be carried out for 2mins, after which the swab should be removed to ensure bleeding has stopped. If not affix the swab with gauze tape. *
13. Transfer blood from syringe into purple EDTA tubes ensuring they are completely filled, either by directly puncturing the top of the EDTA tube in the centre (rubber black area) or remove the tube top and gently inject blood into the empty tube prior to replacing the cap. If a vacutainer device is used, the above would not be necessary as tube would self-fill. Carefully fill 2 purple-top EDTA tubes.
14. Carefully label the tubes with patient CROMIS-2 study number and date and time blood sample was taken. Mark the tubes with CROMIS-2 study, in order they are readily recognised as this will help with processing at the chief site.
15. Fill in the CROMIS-2 blood taking form with all study number and details of the patient. The DNA number and will be issued by the chief site, so please leave blank.

SAFEBOX INSTRUCTIONS



Safebox system

WARNING: Do not close the Safebox lid until all the contents are inside the package as packaging cannot be re-opened.

1. Samples must be in a 4.7mls EDTA tube. If there is a circumstance where you need to send more than one sample of blood in the same box, be please aware that no more than 3 samples (6 EDTA tubes) can be sent per Safebox.
2. Label the tubes **clearly** centre with patient study number, and date and time of sample collection.
3. Place the tubes in the absorbent white material, place in the plastic bag, seal the bag and then place in the clear plastic compartment
4. In the adjacent compartment within the safebox, place the blood taking & patient documentation form. **Ensure the correct forms are placed with the matched blood samples.**
5. **Please ensure that all contents are inside the package before closing.** Once the package has been closed it cannot be reopened without destroying it.
6. Remove the cardboard separator and place the lid over the top of the container and firmly press shut.
7. Peel the outer backing from the label and wrap around the Safebox.
8. Please ensure the outside of the SAFEBOX is clearly labelled with the name and address of the person responsible at site for sending the samples with a contact telephone number.

Also ensure the delivery address is clearly marked as: **CROMIS-2 study, Box 6, UCL Institute of Neurology, Queen Square, London, WC1N 3BG**. CROMIS-2 address labels can be supplied from the Co-ordinating Centre, please ask if required.

9. Take the Safebox to the Post Room if you have a Royal Mail Business Collection Service at your hospital OR take it to your local Post Office if you do not.

For an interactive demonstration of how to pack your samples in the Safebox, please go to http://www.royalmail.com/flash/ctf/safebox/safeBox_F_01.swf

TIMING OF SAMPLE DELIVERY

1. Samples should ideally be sent as soon as they are obtained in the SAFEBOX described above.
2. If samples cannot be sent immediately then they can be stored at ambient temperature for up to one week before sending.
3. Once samples are safely secured inside the SAFEBOX, please alert the Study Co-ordinator (Clare Shakeshaft – c.shakeshaft@ucl.ac.uk) at the chief site of their impending arrival so arrangements can be made to store the samples.

PERSONNEL

Appropriate staff to undertake venepuncture may include:

Research Nurse/ Practitioners

Clinical Research Fellows

Members of clinical staff trained to take blood, including doctors and nurses on the unit.

Health and Safety

1. Standard precautions are required. Always wear gloves when handling blood samples.
2. Refer to the risk assessment, hazard data sheets and the Departmental policy at your site for additional safety information.