

Blood Glucose Monitoring

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Clinical S.O.P. No.: 23

Version 1.1

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DOCUMENT HISTORY

Version number	Detail of purpose / change	Author / edited by	Date edited
1.0	New SOP	Alison Sudworth	
1.1	Minor changes made	Louise Greig	June 2012

1. Introduction

Blood Glucose is performed to provide an indication on how the body is controlling glucose metabolism. When performing blood glucose monitoring staff should be trained in both the theoretical and practical aspects including the use of the device and instruction on calibration of quality control.

2. Objectives

To provide general guidance on how to carry out blood glucose monitoring in order to provide consistency of the procedure as specified in the trial protocol.

3. Responsibilities

It is the responsibility of the individual to ensure they are appropriately trained to carry out this procedure safely.

4. Equipment

- Couch or chair for the patient
- Meter
- Test Strips
- Single Use Safety Lancets
- Cotton Wool
- Disposable gloves
- Sharps bin
- Orange plastic disposable bag
- Documentation

5. Procedure

- The delegated member of staff must ensure that the blood glucose measurement is recorded according to protocol.
- The delegated member of staff will refer to the study protocol to ensure specific requirements for obtaining blood glucose measurements are identified. If no specific study requirements are outlined the delegated person should follow the procedure below.
- Explain the procedure to the research participant and obtain informed consent.
- Ensure that the participant is comfortable and warm.
- Ensure all equipment and documentation required for the procedure is at hand before you start the procedure.

- Prepare the blood glucose meter and test strip (instruction for this depends upon the type of glucose meter used). Ensure the blood glucose meter is clean, working and that the test strips are in date. The meter should be cleaned according to the local infection control guidelines.
- The person carrying out the procedure must wash their hands according to their hospital Hand Hygiene Policy.
- The participant should be asked to wash the area to be used to obtain the sample with warm water and soap, rinse thoroughly and dry. This is to remove any potential interfering substances and to improve the flow of blood.
- The area to be used is the side of the finger; the tips are to be avoided. The chosen puncture site should continually be rotated. Alternate sites such as palm of hand or forearm can be used if the meter and lancet device state this but it has to be noted that results for alternative sites are not as accurate as fingertip when the blood glucose is rising or falling rapidly.
- Prepare the blood glucose meter and test strip, instruction on this depends on the type of glucose meter being used and avoid touching the blood testing end of the strip.
- A single use Sterile Safety lancet should be used, unless the participant has been allocated as per study protocol their own meter and their own finger pricking device with lancets for their sole use.
- Use the lancing device to obtain a small drop of blood. Apply blood drop to the target area of the test strip in the blood glucose meter. The results will be displayed on the meter after several seconds. If the sample of blood is inadequate an error message will appear on the meter and the test will be required to be repeated.
- Apply cotton wool to the puncture site and apply pressure.
- Read result and record date, time and blood glucose result.
- The single use safety lancet or the lancet from the finger pricking device should be put straight in to an appropriate yellow sharps container, dispose of the test strip and the cotton wool in accordance with the hospitals policy.
- If any blood spillage occurs the delegated person should clean up the spillage in accordance with hospital Policy for the decontamination of Hospital Equipment and Medical Devices.
- The result must be recorded in the relevant study source documentation.
- The delegated person must wash their hands according to their Hospital Hand Hygiene Policy.
- The Meter should be cleaned with a damp cloth /detergent and not alcohol wipes. The hospital policy for De-Contamination should be followed.
- Make a record of the procedure in all relevant documentation.

6. Additional information

- If any blood spillage occurs the nurse/delegated person should clean up the spillage in accordance with local infection control policies.
- Perform and record a Quality Control test using a high and low quality control solution or self test as per hospital policy. This is to ensure precision and accuracy.
- Check quality control result against range and do not accept patient's results if quality control is outside the limits.
- Do not use the meter if failed quality Control and quarantine the meter, test strips, QC Solution and the QC Log Book and report to relevant authority e.g. hospital department, study sponsor.
- Note the Serial Number of the meter, lot number of the strips and Quality Control Solution.

7. Contraindications for Use of Blood Glucose Meters

The MHRA recommend that the therapeutic decisions should not be based on a capillary sample in these circumstances;

- Severe Dehydration
- Hypotension
- Shock
- Peripheral Circulatory Failure
- Diabetic Ketoacidosis
- To make a diagnosis of Diabetes
- Venous samples should be sent to local lab for verification of blood glucose level if any of the above conditions are present.