

ASSESSMENT & PREPARATION

Haemoglobinometer

Haemoglobinometers provide rapid measurement of a patient's haemoglobin level to help direct treatment

USE FOR

- Infants with signs of anaemia
- Infants at risk of developing anaemia

STANDARD OF CARE

Small and sick infants are at greater risk of becoming anaemic than term infants 2-10 weeks after delivery

Haemoglobin levels in newborns vary widely depending upon gestational and chronological age



1 COLLECT ALL MATERIALS

- Haemoglobinometer
- Lancet
- Microcuvette
- 70% Alcohol
- Cotton wool or gauze
- Gloves
- Small tray to carry items
- Sharps container



2 PREPARE DEVICE

- Turn on device by pressing power button
- Pull the microcuvette holder out into its loading position

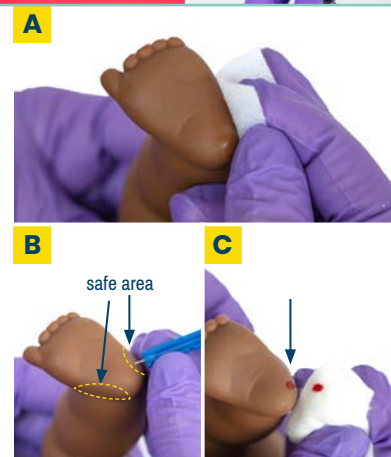


3 PREPARE PATIENT

Follow hand washing protocol and put on gloves

Manage patient's pain

- A** Clean skin on the outer or inner edge of the patient's heel using 70% alcohol
- B** When dry, prick foot on safe area as indicated
- C** Wipe away first drop of blood



4 CHECK HAEMOGLOBIN LEVEL & CONCLUDE ASSESSMENT

- A** Using the second blood drop, fill the microcuvette from the tip completely in one continuous process

Wipe off excess blood from outside of the microcuvette

Make sure sample is free of air bubbles

- B** Place the microcuvette in the holder and close
- C** Read and record haemoglobin result
- D** Using a dry cotton swab, apply pressure to the heel to stop the bleeding



? COMPLICATIONS

- Bruising
- Bleeding
- Pain
- Infection
- Artery, nerve or bone damage
- Inaccurate readings

- Ensure blood sample is tested within 10 minutes. Delay may affect the result
- Test accuracy can be affected by using the first drop of blood, not waiting for alcohol to dry before sample collection, inadequate filling of microcuvette and excessive squeezing of heel to obtain sample
- Blood glucose samples should NEVER be taken from the finger or toe of a neonate

! DISINFECTION & INFECTION PREVENTION

- Clean hands with soap and water or 70% alcohol before and after handling haemoglobinometer materials that will be used on patients
 - Always wipe the haemoglobinometer with 70% alcohol between patients
 - Dispose of microcuvette in clinical waste container
 - Dispose of used lancet in sharps container
 - Disinfect the microcuvette holder after each day of use with 70% alcohol
- i** Refer to the General Infection Prevention Module

REPAIR & MAINTENANCE

Haemoglobinometer

Haemoglobinometers and cuvettes should be **stored in a clean, dry, and secure area**. Keep microcuvette container tightly closed when not in use.

Care should be taken to ensure that haemoglobinometers and microcuvettes **remain in the ward** and are **accessible for use when required**.



⚙️ DAILY MAINTENANCE

Wipe haemoglobinometer housing and microcuvette holder with 70% alcohol before first use, between patients and when visibly soiled.

Do not submerge **device** or drip alcohol onto microcuvette reading slot. Make sure to allow microcuvette holder to **completely dry** before use.

⚙️ PREVENTIVE MAINTENANCE

Perform quality control test with control solution **every week** or when changing microcuvette containers.

The optronic unit should be cleaned when an error message comes up on the screen.

If the haemoglobinometer is **not turning on**

Try replacing batteries



Try operating device while plugged directly into power



If the haemoglobinometer is providing results consistently **incompatible with the patients' condition**

Make sure microcuvette being used is not expired, compatible with device and is free of smudges, dirt and air bubbles

Repeat test using a microcuvette from a newly opened container

Make sure microcuvette holder is clean

Perform quality control test

If the results are still **incompatible with the patients' condition**

Clean the device's optronic unit (follow the steps below)

Step 1: Remove the microcuvette holder

Step 2: Dampen a cotton swab with 70% alcohol

Step 3: Pass it back and forth in the internal compartment of the haemoglobinometer



! CONTACT A TECHNICIAN OR MAINTENANCE DEPARTMENT IF DEVICE CONTINUES TO NOT WORK PROPERLY AFTER ADDRESSING THE COMMON ISSUES !