

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



Note: the analyser does NOT have an ON/OFF switch; it is always ON

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

1 COLLECT ALL MATERIALS

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

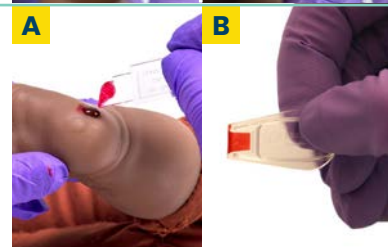
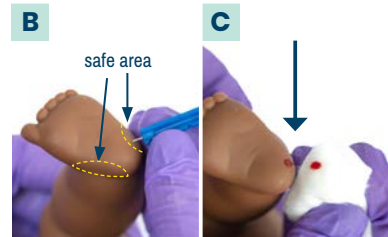


2 PREPARE PATIENT

Follow hand washing protocol and put on gloves

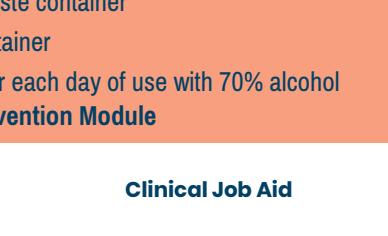
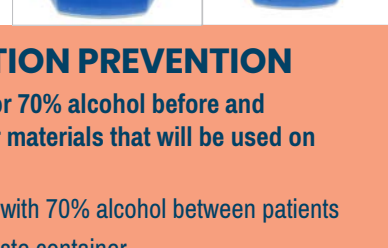
Manage patient's pain

- A** Disinfect 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



3 CHECK HAEMOGLOBIN LEVEL & CONCLUDE ASSESSMENT

- A** Using the second blood drop, fill the microcuvette from the tip completely in one continuous process
 - B** Wipe off excess blood from outside the microcuvette
 - C** Apply pressure to the heel with dry cotton wool to stop bleeding
 - D** Insert the filled microcuvette in the holder and press down gently until you hear a "click"
 - E** Hold in position until result shows on screen
 - F** Pull microcuvette out QUICKLY and discard in sharp's box
 - G** Erase the result by pressing down on the microcuvette holder
- Make sure sample is free of air bubbles
- Read and record haemoglobin level result when a checkmark shows on screen
- Manage the infant according to ward protocol



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
- 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.

Disinfect microcuvette holder **daily**.

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

⚙️ PREVENTIVE MAINTENANCE

The DiaSpect Tm automatically self-checks after each measurement; there is no need for routine quality control.

If the haemoglobinometer screen is **blank** or displays **Error Code E07**

Try charging the device for a minimum of 4 hours



charging by power supply



charging by computer

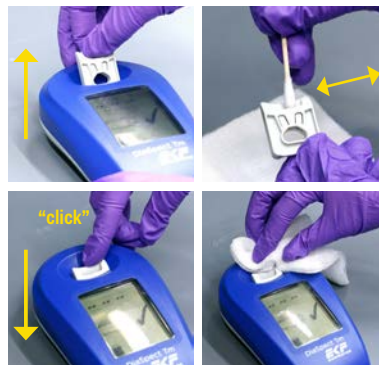


If the haemoglobinometer is providing results consistently **incompatible with the patients' condition**

Make sure microcuvette being used is not expired, is 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 self-check function fails and displays **Error Code E03**

This can be caused by:

- *Not using the device for about 2 hours*
- *A filled microcuvette is left in the holder or removed too slowly*

Remove the filled microcuvette if present

Make a blank measurement by pressing down the empty microcuvette holder

Check that the screen displays “--- ---”



Reinsert the filled microcuvette for measurement

Repeat test

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