COLLECT ALL MATERIALS
- Bilirubinometer
- Lancets
- Test strip
- Transfer tube
- 70% Alcohol
- Gloves
- Cotton wool/gauze

PREPARE DEVICE
A. Turn on the device by pressing the power button
B. Device will show GO and the measurement button will turn blue when it is ready for testing

PREPARE TEST STRIP
A. Hold the transfer tube horizontally without squeezing and collect the second drop of blood. Fill to the designated mark
B. Squeeze blood from the transfer tube onto the test strip
C. Close test strip until you hear a click

CHECK SERUM BILIRUBIN LEVEL
A. Wait 5 minutes then insert the prepared test strip with curved edge facing forward
B. Start testing by pressing and releasing the measurement button
C. Read and record results displayed in mg/dL
(To convert to mmol/L, multiply result by 17.1)

PREPARE PATIENT
Follow hand washing protocol and put on gloves
Manage patient’s pain
A. Disinfect skin on the outer and 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

COMPLICATIONS
- Bruising
- Bleeding
- Nerve or bone damage
- Pain
- Infection
- False readings

DISINFECTION & INFECTION PREVENTION
- Clean hands and put on gloves before and after handling bilirubinometer materials that will be used on patients
- Always wipe the bilirubinometer with 70% alcohol between patients
- Dispose of test strip and transfer tube in clinical waste container
- Dispose of used lancet in sharps container

When results from bilirubinometer device do not match clinical condition or indicate need for exchange transfusion, always verify result with repeat point-of-care testing and/or medical laboratory testing.
For accurate results the sample must be collected when the phototherapy light is turned off

For more information, refer to the General Infection Prevention Module
Bilirubinometer, strips and transfer tubes should be stored in a clean, dry and secure area. Keep strips sealed until ready to use. Care should be taken to ensure that bilirubinometers and accessories remain in the ward and are accessible for use when required.

**DAILY MAINTENANCE**
Wipe the bilirubinometer with 70% alcohol using gauze or a cotton wool before first use and between patients. Do not submerge device or drip alcohol onto where the test strip is inserted.

**PREVENTIVE MAINTENANCE**
BiliDx will prompt the user to calibrate the device every 25 tests. If the user attempts to exceed 50 tests without performing calibration the device will show an error message and will then require calibration before further testing is possible.

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**To calibrate the bilirubinometer**
- Take a new test strip, close it without blood
- Turn on the device
- When it reads **GO**, press and hold the measurement button until it reads **CAL**
- Insert the empty test strip into the device with the curved edge forward and wait for it to read **DONE**

**If the bilirubinometer is not turning on**
- Make sure the device has been charged and the power status light is **ON**

**If the bilirubinometer is providing results consistently incompatible with patients condition**
- Check that there are no blood sample factors such as:
  - failure to use 75 µl transfer tube
  - very high patient haematocrit
  - blood samples contaminated by substances on the skin
  - direct exposure of a blood sample to phototherapy or sunlight
- Make sure you have waited at least 2 minutes and not longer than 60 minutes after applying blood to the test strip to run the test
- If results are still inconsistent calibrate the device

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