ACCU-CHEK INFORM II METER POINT OF CARE GLUCOSE TESTING

Accu-Chek Inform II Meter

Why is it essential to do Glucometer training and re-certification each year?

- To ensure quality results and quality care of patients
- To ensure the safety of our patients
- To prevent injury to our patients
- To satisfy regulatory requirements

Training and Re-certification

- Only trained operators will have an operator ID
- Operators should only use their own operator ID
- Your operator ID is your employee ID (Scan your badge)
- Your unit trainer will train and recertify you as part of your annual competency

COMMON QUALITY ISSUES REPORTED

Failure to do repeat testing for initial critical results	Failure to run the correct level of QC	Failure to follow protocol for results with > 15% difference
Proper cleaning and decontamination of Inform meter	Inform Meters not docked after each use	Failure to obtain Lab Glucose test when meter reads as “HI” to obtain actual value
Failure to wipe away the first drop of blood	Strips that have been out of the container for more than 3 minutes	Strips tested that are not matched to their vial will cause erroneous result

Specimen Acceptable Samples

- The following fresh whole blood sample types may be used:
  - Venous whole blood
  - Arterial whole blood
  - Capillary whole blood
    - fingerstick
    - neonate heelstick
- Note: Cord blood samples cannot be used

Equipment and Reagents

Accu-Chek Inform II meter

- Must be fully charged
- Coded to the test strip lot you intend to use

Docking station

- Provides charging and
- platform to transmit glucose results to Epic

Accu-Chek Inform II test strips

- Expiration is date printed on vial

Accu-Chek Inform II Control 1 & 2

- 3-month expiration (90days) from date opened

Equipment and Reagents

Accu-Chek Inform II test strips

- Expiration is date printed on vial
- Recap the test strip vial immediately after you remove the test strip you plan to use.
  - Strips that is out of container (exposed to air) > 3 minutes will cause erroneous results
  - Never use test strips found loose outside the vial.
  - Discard any vial of strips that you find uncapped.

Calibration

- Calibration verification
  - check with Linearity material
- Performed by the Point of Care Coordinator every 6 months

QUALITY CONTROL TESTING

NOTE: Quality control results must report as ‘PASS” for both levels.

Low- and high-quality control testing is performed on the following occasions:

- every day after 04:00 AM (lock out feature)
- when a new test strip vial is opened
- repeat POC glucose testing result that > 15% difference

Be careful when running controls

- Only run the Level 1 under the Level 1 option and Level 2 under the Level 2 option
- Failure to properly identify and run proper level will be tracked as a quality assurance issue as

“Wrong level of QC was run - Attention to detail” issue.

TROUBLE SHOOTING - Out-of-range quality control results

Take the following actions if your **results are not within established limits:**

- **Add a comment(s)** to the out-of-range result
  - indicating that the test will be repeated
- **Repeat the test one time**
  - using the **same test strip vial, control solution(s) and meter.**
- If the **result is in range**
  - you may proceed to patient testing
- If the **repeat test** using the same test strip vial is **still out of range**
  - **repeat the test using a different test strip vial**

TROUBLE SHOOTING - Out-of-range quality control results

If the result is **within range**

- you may **proceed with patient testing** using the **new test strip** vial
- **discard the strip vial that failed quality control testing**

If the **repeat test using the different test strip vial remains out of range**

- repeat the test using a **new vial of control solution.**

If the **result is within range,**

- proceed with patient testing
- discard the control vial that failed quality control testing

If the **repeat test using the new control vial remains out of range**

- remove the meter
- remove all the test strips
- Remove controls you used
  - deliver them to the Laboratory department for further investigation

TROUBLE SHOOTING - Meter operational issues

If the meter fails to function at any point in the procedure or if you get an error message associated with the result

- make a note of the malfunction or error message
- attempt to repeat the test

If the error persists

- sequester the meter and test strip vial involved
- deliver them to the Laboratory for advanced troubleshooting
- pick up a backup meter

- Questions/Concerns regarding the ACCU-CHECK Inform II meter – Call Mark Sadecki at ext. 4098.

SCANNING THE PATIENT'S BARCODE/ TESTING PROCESS

- Two patient identifiers must be checked prior to testing
  - Full name and date of birth
- The Accu-Check Inform II Meters have been configured to **only** accept a 10 digit CSN number.
- Scan the Barcode on Patient's armband whenever possible.
- Barcode must be scanned at the bedside.
- If the Patient's Barcode does not scan into the meter from the armband, then manually enter the entire patients CSN number. If there is a problem then enter last name, space and first name into the meter.
- Registration should be called to fix the problem.

PERFORMING A PATIENT'S TEST

1. Wash hands and put on personal protective equipment (gloves)
2. Enter your operator ID by means of barcode scanning
   - **Lasers should never be stared at directly by the human eye**

   NOTE:
   - If the operator ID you enter is not accepted,
     - attempt to re-enter it.
   - If it is still rejected,
     - contact your supervisor or Point of Care Coordinator.
   - DO NOT attempt to perform tests under another operator's ID.
     - Falsification of record
     - Can result to disciplinary action for the operator and the co-worker
     - Makes coworker liable for the result
3. Enter the patient identification in the ACCU-CHEK Inform II system
   - **Scan the patient's CSN# by the bedside**

PERFORMING A PATIENT'S TEST

4. Explain the procedure to the patient

5. Select the finger site for puncture.
   - It is preferred to select the side of a **middle or ring finger that has not been punctured recently.**

6. Enhance blood flow to the selected puncture site

7. Cleanse the puncture site by means of wiping with Alcohol pad
Allow the site to air dry completely before puncturing.

8. Advise the patient of imminent puncture.
Safety lancet (Medline Push Button Safety Lancet)

PERFORMING A PATIENT'S TEST

9. Hold the puncture site downward and gently apply intermittent proximal to distal pressure along the finger toward the puncture site to express a blood drop.
    - Do not apply strong repetitive pressure at the fingertip it may cause hemolysis or contamination of the sample with tissue fluid and may lead to questionable results.

Common methods for stimulating blood flow include:

- Warming the site
- Positioning the hand below the heart
- Gently massaging the hand by stroking from the palm outward to the fingertip
- Asking the patient to move and flex his/her arm, wrist, hand and fingers while you are gathering supplies and preparing the system for testing

Do not attempt to express blood from a previous puncture site even if it still appears to be bleeding because it is likely that the clotting process has begun may alter the sample matrix

A fresh puncture should be made for every test

PERFORMING A PATIENT'S TEST

10. Wipe the first drop away with a clean gauze
    - it ensures that the alcohol is dry
    - it stimulates blood flow
    - clears interstitial fluid from the sample

11. Apply a well-formed drop to the ACCU-CHEK Inform II test strip

13. Apply gentle direct pressure to the puncture site for several minutes and elevate the hand to reduce blood flow to the fingertip.

14. Check the site to ensure that it is no longer bleeding before leaving the patient bedside.

15. Discard all sample collection and testing materials in biohazard/sharps container.

16. Wash hands before leaving the patient room.

POC GLUCOSE PROCEDURE

16. **Touch**  to enter up to three appropriate comment(s) as required in the “Reporting and Interpreting Results”

17. **Touch the ✓ button** to confirm the result.

18. **Disinfect the meter** every after-patient use.

19. **Place the meter in the base unit** to send the result and record the result into the electronic data management system.

CRITICAL GLUCOSE RESULTS

- Critical glucose results:
  - Less than 50 or Greater than 400
- The meter reading range is 10 – 600
- Non-numeric result **LO or HI**
- measurement range default for tests that exceed the established reportable range of **less than 10 or greater than 600.**
  - If the word “LO” appears on the meter the blood glucose level is below 10mg/dL (Less than 10).
  - If the word “HI” appears on the meter the blood glucose level is above 600 mg/dL(Greater than 600)

CRITICAL GLUCOSE RESULTS

- Critical glucose results > 400
  - Initial critical glucose result must be repeated immediately
  - Lab specimen must be ordered and collected for an initial critical high glucose result (>400) that has been verified by immediate repeat on the inform meter.

CRITICAL GLUCOSE RESULTS

Critical glucose results < 50

- Initial critical glucose **result must be repeated immediately**
- **Lab draw is not needed** for initial low critical (<50) result that has been verified by immediate repeat on the Inform meter.
  - Critical low results are usually immediately treated with D50 or juice

CRITICAL GLUCOSE RESULTS

Repeat values that are **greater than 15% difference** from each other

- Critical low results that are repeated **must be within 15 point**s of each other for values less than 50.
- Critical High results that are repeated **must be within 100 points** of each other for values greater than 400.
  - staff must **run a third glucose test** that is within the 15% variation limit
  - If all three results are significantly different
    - then the two levels of QC must be run prior to any further patient testing.

CRITICAL GLUCOSE RESULTS

Once a patient has demonstrated a critical glucose result via the above-mentioned process

- critical glucose result may be accepted from any subsequent Glucometer glucose values **within a three-hour time frame**

If it has been **more than three hours** since that last verified critical glucose result

- the staff must again repeat the glucose test on the Glucometer
- request a Stat Lab glucose be collected and tested for critical results >400

CRITICAL GLUCOSE RESULTS – Entering Comments

The testing personnel will **enter a comment code directly into the Inform Glucometer at the time of testing.**

- Comments are required whenever results are:
  - Control results that are **out of range**
  - Patient results that **exceed critical limits**
  - Patient results that **exceed reportable limits**
  - **Any test that an operator intends to repeat**
  - **Any result the operator feels is inaccurate or does not belong in the medical record.** (Result Questionable, Invalid Result, Wrong ID used, Blood QNS invalid, Procedure Error)
    - These comments will prevent the result from automatically crossing to the Hospital (Epic/Cerner HIS) medical record.
- There are several preprogrammed comments you may use
  - Procedure error
  - Invalid result
  - Blood QNS invalid
  - Wrong ID used

When do we clean the meter?

- Wipe meter down when retrieving meter from its docking station prior to patient testing
- After each patient use
- Visibly soiled

Meter Cleaning Procedure

1. Gray top - PDI SANI-CLOTH AF3 – Germicidal Disposable Wipes are acceptable to be used to disinfect the inform meter
   - **remain wet for 3 minutes.**
   - After the 3 minutes
     - dry the meter thoroughly with a dry gauze.
2. Orange top - PDI SANI-CLOTH BLEACH – Germicidal Disposable Wipes are acceptable to be used to disinfect the inform meter
   - **C. diff infected patients only**
   - **remain wet for full 4 minutes.**
   - After the 4 minutes
     - dry the meter thoroughly with a dry gauze

- NOTE:
  - 70% alcohol wipes
    - may be used to clean the results window – touch screen

REFERENCE

University of Maryland Charles Regional Medical Center Point of Care procedures (2020). Glucose – Accu-Chek Inform II Meter. Policy Number: POC-0010