Performing a Quality Control Test: ACCU-CHEK® Performa

Point of Care Testing (POCT) - ACCU-CHEK® Performa Quick Reference Guide

Applies to:	Health care providers who perform blood glucose monitoring at the point of care using the ACCU-CHEK® Performa meter.
Purpose:	To perform a quality control test using the ACCU-CHEK® Performa blood glucose meter.

Quality control (QC) tests are routine tests that verify:

- The reliability of ACCU-CHEK® Performa meter results at different ranges (using QC solution vials 1 and 2).
- The test strip and QC solution integrity.
- The accuracy of the operator's technique.

Note: All operators must be able to perform QC tests. They can be done any time and are a good way to maintain your skill with the meter.

When to Perform a Quality Control Test

- Every **24 hours**.
- Immediately before patient testing if the test has not been done within the last 24 hours.
- Every time you open a new container of test strips or a new vial of QC solutions.
- If the meter is dropped.
- If there is a question about a patient's glucose results (i.e., if the glucose result is inconsistent with clinical presentation) to ensure the meter is working properly.

Performing a Quality Control Test

Preparing for the Test

Gather supplies:

- ACCU-CHEK® Performa meter.
- Test strip container.
- Quality Control solution vials (1 and 2).

Note: Check the expiration date on the test strip container and the QC vial to ensure that they have not expired.

Inserting the Test Strip

1. Take a test strip from the test strip container and immediately close the container tightly to protect the remaining strips from humidity.

2. Insert the test strip into the meter in the direction of the arrows.
   - The meter turns on and a code number displays on the screen.

3. Compare the code number on the screen with the code number on the test strip container and ensure that they are the same.

- The code number disappears after a few seconds. If you did not see the code number, remove the test strip from the meter and reinsert it so it displays again.
- After the code disappears from the screen, a test strip and a flashing blood drop symbol appears; this shows that the meter is ready to test.

Applying the Quality Control Solution

1. Put the meter on a flat surface.

2. Select the QC solution to be tested.
   - The level of the QC solution is entered in the meter later.

   - Ensure that the QC solution has not expired. The QC solutions can be used until the expiry date on the vial label or for 90 days from the date they were first opened, whichever comes first.

3. Mix the QC solutions by gently inverting the bottle 5 times.

4. Take off the cap of the QC solution vial and wipe the tip of the vial with a tissue to remove any dried residue.
   - If you are opening the QC vial for the first time, write the date opened on the vial label.

5. Discard the first drop of QC solution.

6. Touch the second drop of QC solution to the **front edge** of the yellow window at the end of the test strip.
   - When enough QC solution is applied to the test strip, an hourglass symbol flashes on the screen to show that the meter is analyzing the QC solution.
   - Result appears on the screen in 5 seconds, along with the control bottle symbol and flashing "L." Do not remove the test strip at this point.

7. Use the forward arrow button (►) to specify the level of the QC solution that you used:
   - If you used the QC solution vial 1, press the arrow button **once**.
   - If you used the QC solution vial 2, press the arrow button **twice**.

8. Press the on/off/set button (⊙) to save the level in the meter.

Reviewing and Documenting the Result

1. Review the results.
   - If the result is within acceptable range, the word **OK** and the result alternate on the screen.
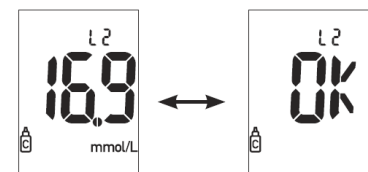
Note: If the result is out of range, the word **Err** and the result alternate on the screen. Identify the potential of error, correct it and repeat the QC test.

If results remain outside acceptable range after two attempts:
Do not use the meter for patient testing; refer the patient tests to the laboratory and contact the POCT lab (lab.technical-poc@viha.ca) for troubleshooting assistance.

2. Document the result on your *Point of Care Quality Assurance & Maintenance Record* form.

Finishing the test

1. Put the cap securely back on the **correct** control solution bottle.
   - QC solution vial 1 = grey cap.
   - QC solution vial 2 = white cap.

2. Remove the used test strip.
   - The meter turns off automatically 5 seconds after the test strip is removed.

3. Dispose of the used test strip as per approved Island Health guidelines.

4. Repeat the test using the second QC solution vial.
   - Patient testing cannot be done until both levels of quality control (using QC solution vials 1 and 2) are performed and **OK** displays on the screen for both tests.