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Life needs answers



Diagnostics

Accu-Chek Inform II Blood Glucose Monitoring System



Ancillary Testing Coordinator:

Teresa Collins MLS (ASCP)^{cm}

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Life needs answers

Training Objectives

By the end of this session you will be able to:

- Explain why training is required.
- Identify contraindications/test interferences.
- Identify components of the meter and supplies required for testing.
- State Why and When you have to quality control your meter.
- Perform Quality control, patient test and proficiency as per SORCC Policy.
- Interpret glucose results.
- Identify Point of Care contact on site.

Why Training?

- ***Because our patients deserve quality results and care.***
- ***To minimize adverse effects.***
- ***To maintain competency in testing, interpreting results, and troubleshooting.***
- ***It is a CLIA, TJC, and CAP requirement.***

SAFETY



- Use proper hand hygiene (MCM IC-044)
- Identify patients using two unique identifiers
- Wear gloves when testing QC or patient specimens, change gloves in between patients, and wash or cleanse hands in between patients.
- Use single-use Lancet and discard in approved sharps container after use.
- Clean and disinfect Accu-Chek glucose meter after each patient use.

Clinical Indications



- Any patient requiring testing for the purpose of monitoring and managing diabetes control or glucose levels.
- Not to be used for critically ill patients.
- Definition of critically ill patient: A patient with a mean arterial pressure of less than 60 mmHg or systolic pressure less than 90 mmHg or patient on vasopressors, patient with mottling of skin, patient with end stage congestive heart failure (CHF) (as defined by ejection fraction less than 15% mmHg), patient with hypothermia (body core temp less than 95 degrees Fahrenheit (F)), or patient with lactic acid of over 4.0 mmol/L. Note: if a patient present meeting the critically ill criteria and glucose testing is needed a lab draw for testing on lab instrumentation is required.



LIMITATIONS

- Hematocrit should be between 10-65%
- IV administration of ascorbic acid resulting in >3 mg/dL. (May cause overestimation)
- Galactose >15 mg/dL (May cause overestimation)
- Lipids: Triglycerides >1800 mg/dL (May increase glucose)
- Dehydration
- Hypotension
- Shock
- Peripheral Occlusive Disease
- Hyperosmolar Non-Ketotic Coma
- Diabetic Ketoacidosis
- Unconscious Patients
- Decompensated Heart Failure NYHA Class IV



Meter and Supplies



1 Test Strip Port

2 Touch Screen

3 On/Off Button



4 Barcode Scanner

5 Battery Compartment

6 Charging Contacts

7 Infrared Window

Supplies (cont.)

Control reagent and test strips are obtained from the lab.

Supply Chain Management is responsible for supplying lancets and cleaning wipes.



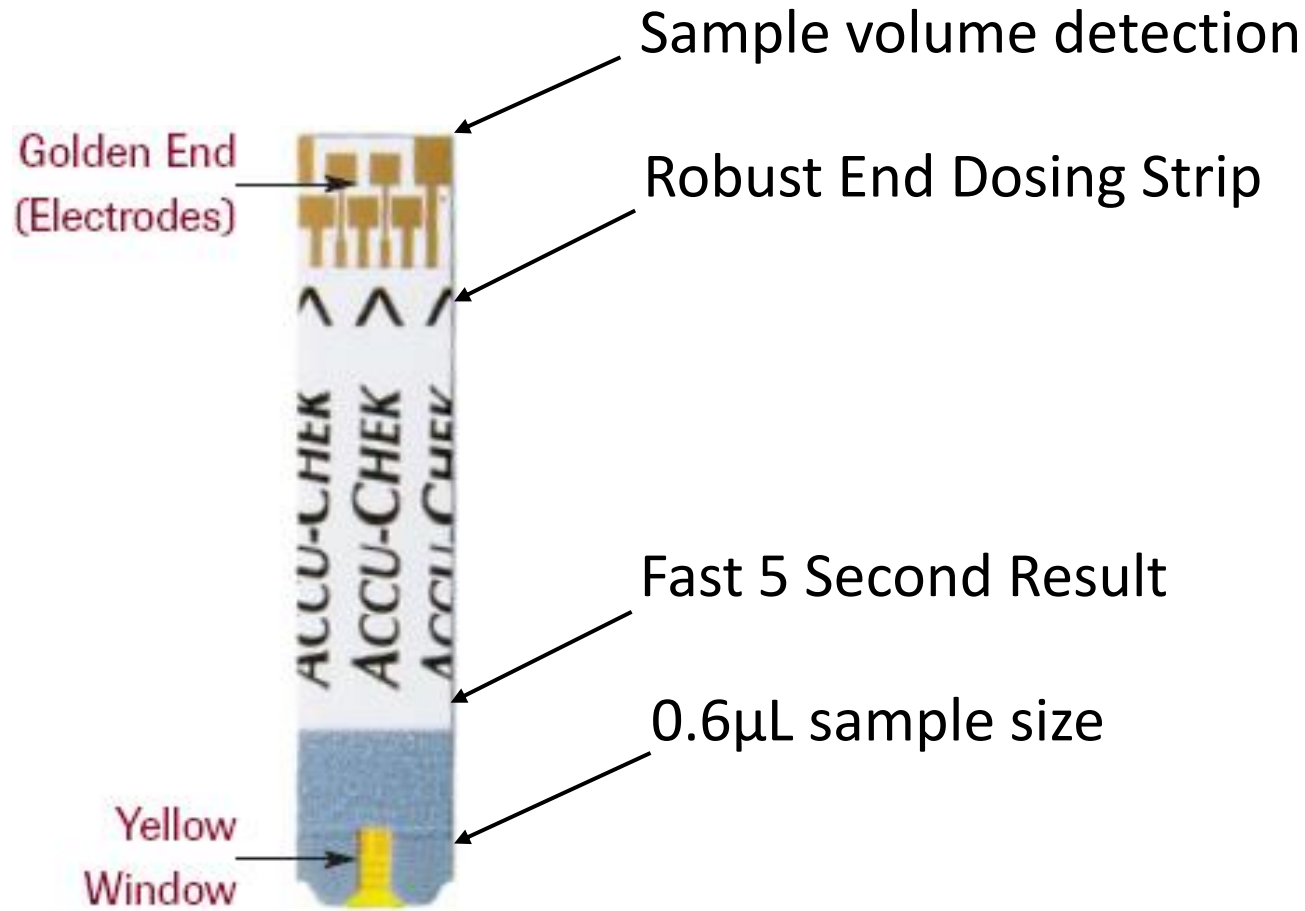
*Reagent Strips:

Once opened, test strips are good until expiration date on bottle when properly closed and stored.

Supplies (cont.)



Accu-Check Inform II Test Strip:



Supplies (cont.)



*Quality Control Reagent:

Good for 90 days once opened.

*You MUST write EXPIRATION date on the bottle.

*Circle manufacturer's expiration date if it is less than 90 days after opening.

* Meter will know when the manufacturer expiration date is but not the open expiration date.



Quality Control Testing



Why Quality Control?

To ensure meter and strips are operating properly.

When to Quality Control?

Once per 24 hours

When new lot of test strips are opened.

When a new lot of quality control are opened.

When you notice test strips have been left open.

When you suspect erroneous results.

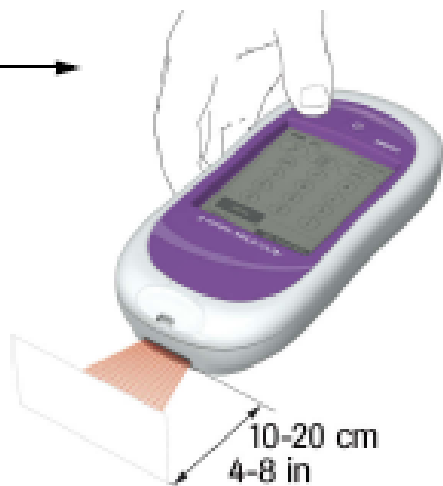
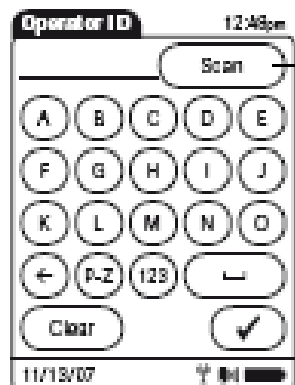
Anytime the meter has been dropped or mis-handled.

Start Up – User Identification



1 Press and release the On/Off button. The system is now on.

2 The Power Up screen appears.

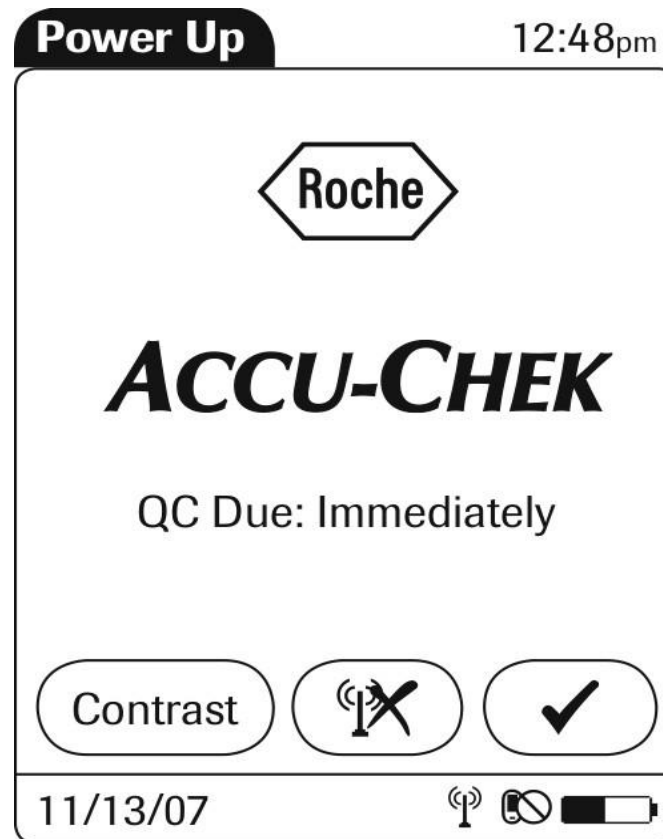
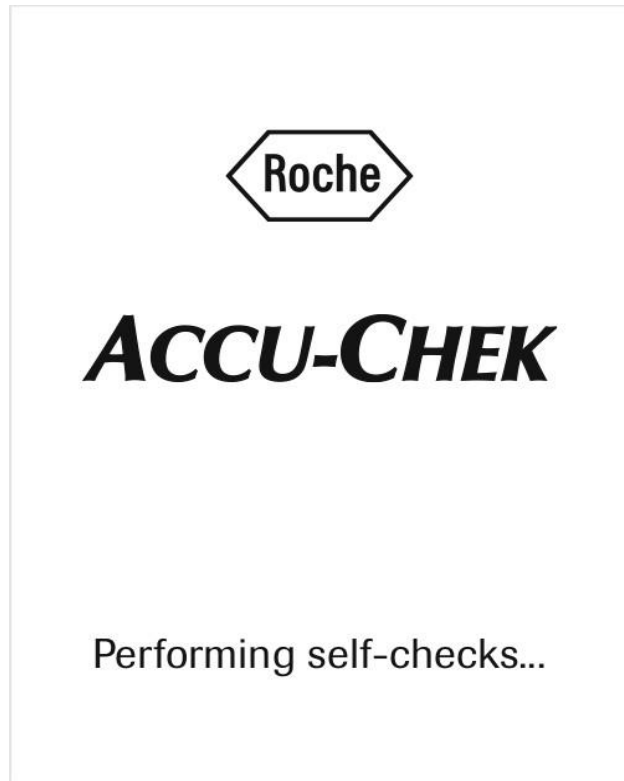


- Scan user ID (EHR ID)
- User ID unique to user and compulsory for all activities

Accu-Chek Inform II

Power up screens

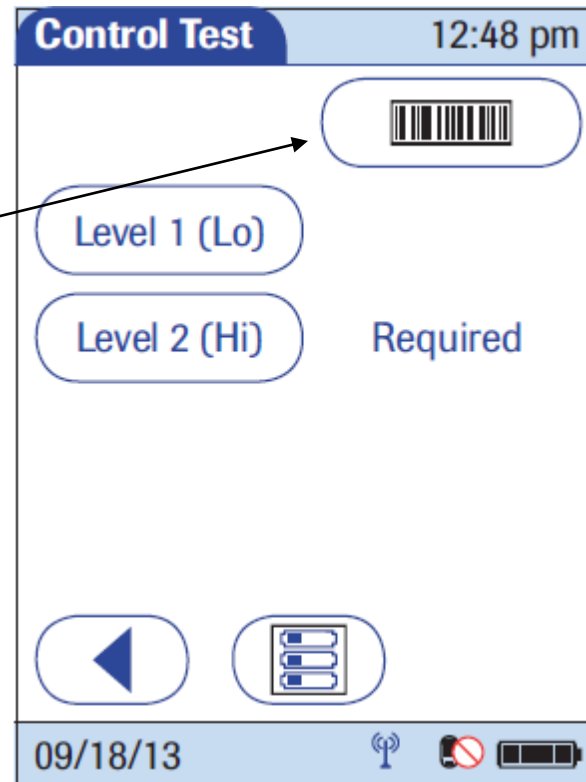
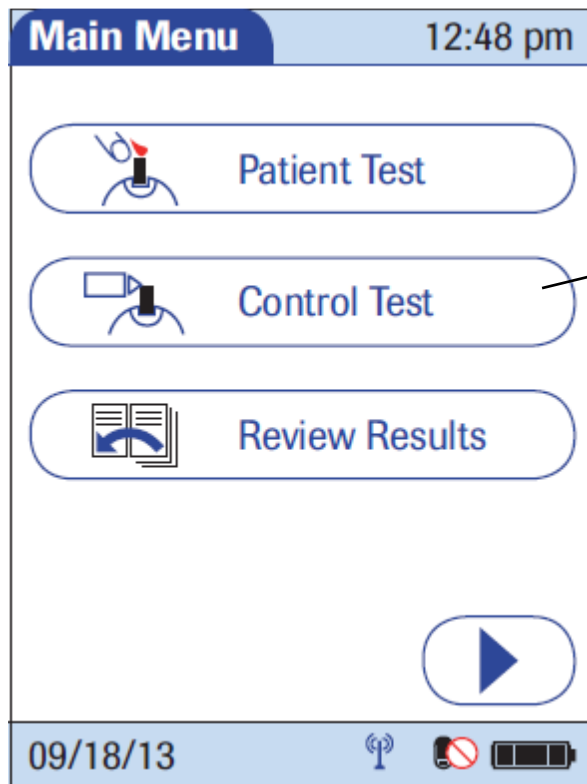
You will see one of the following screens:



Performing quality control

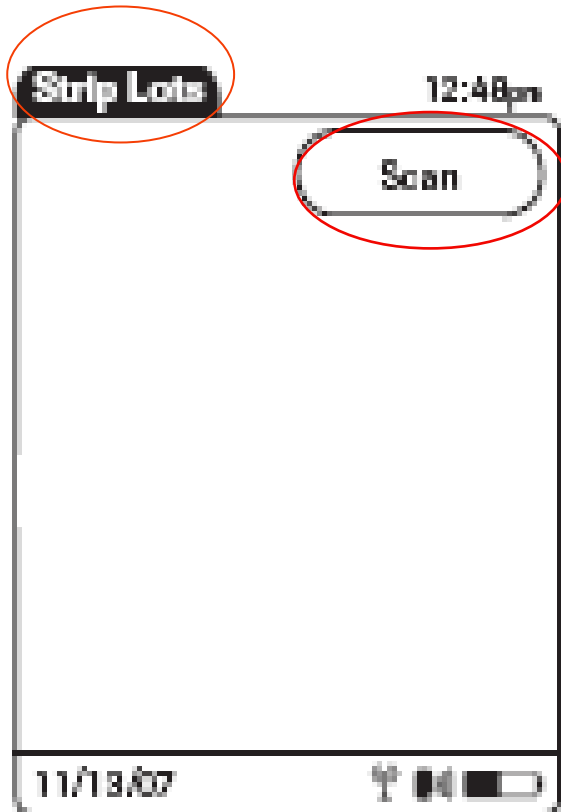
1. Press “Control Test”

2. Press barcode icon and scan control vial.



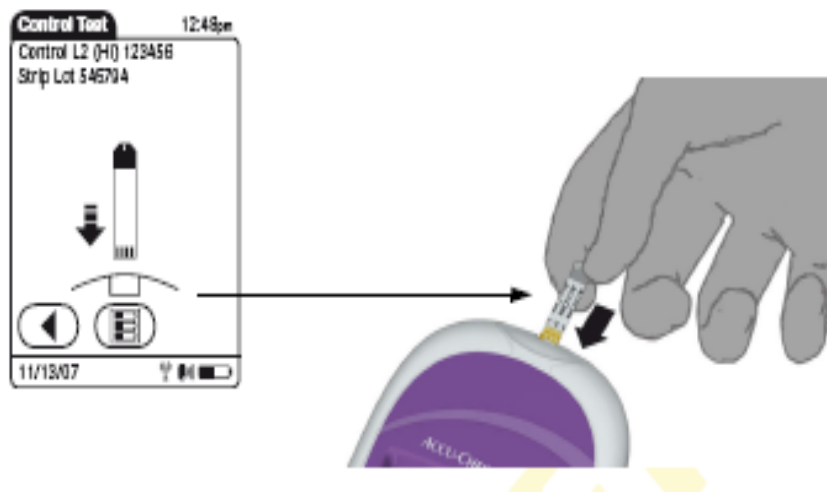
Performing quality control

3. Press “Scan” (barcode icon), then scan the test strip vial.

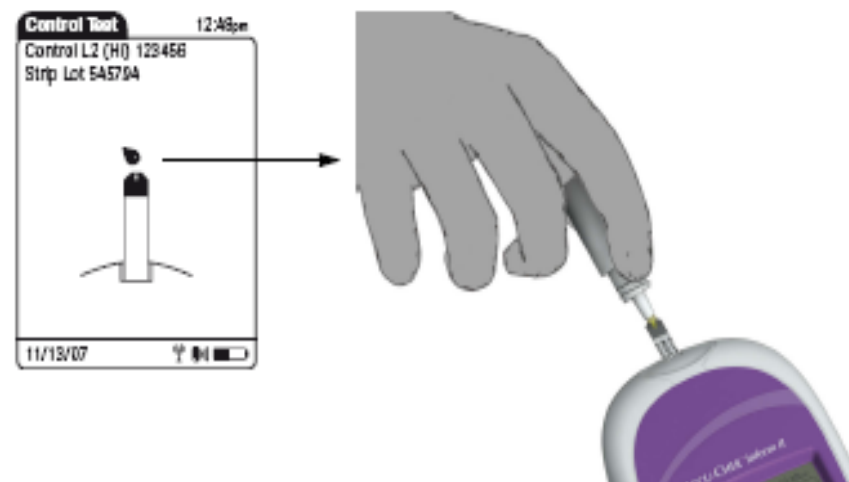


Performing quality control

4. Insert test strip.



5. Wait for the screen with the droplets to appear then place control drop on end.

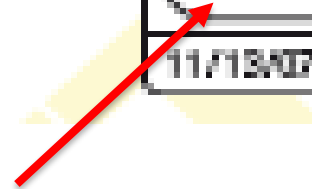
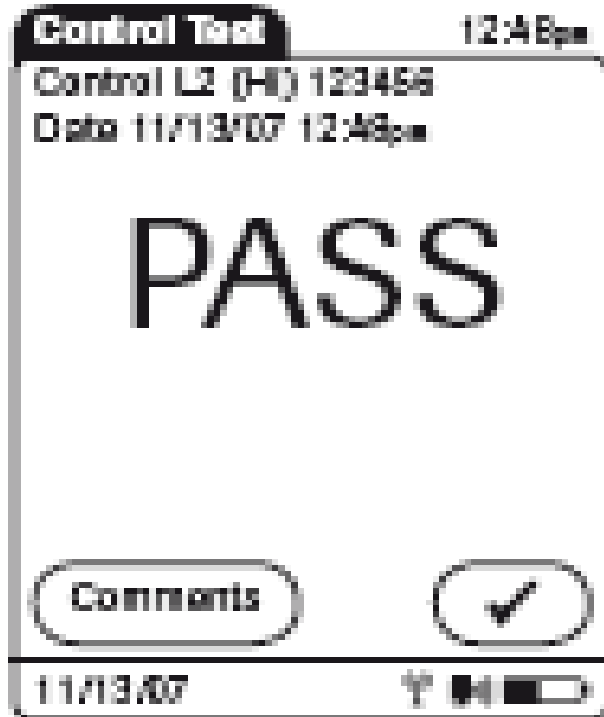


Note: Ensure you mix the QC vials prior to testing. Failure to mix is the main cause of QC errors.

The drop does not get placed on top of the yellow portion but rather the very end of the strip.

DO NOT hold the meter in an upright position when performing QC. The QC liquid will drip in the strip port and will cause the meter to malfunction.

Performing quality control



Failed Quality Control Test

- Level 1 & 2 solutions must pass QC test.
- If test displays **FAIL**: Add Comment and repeat test.

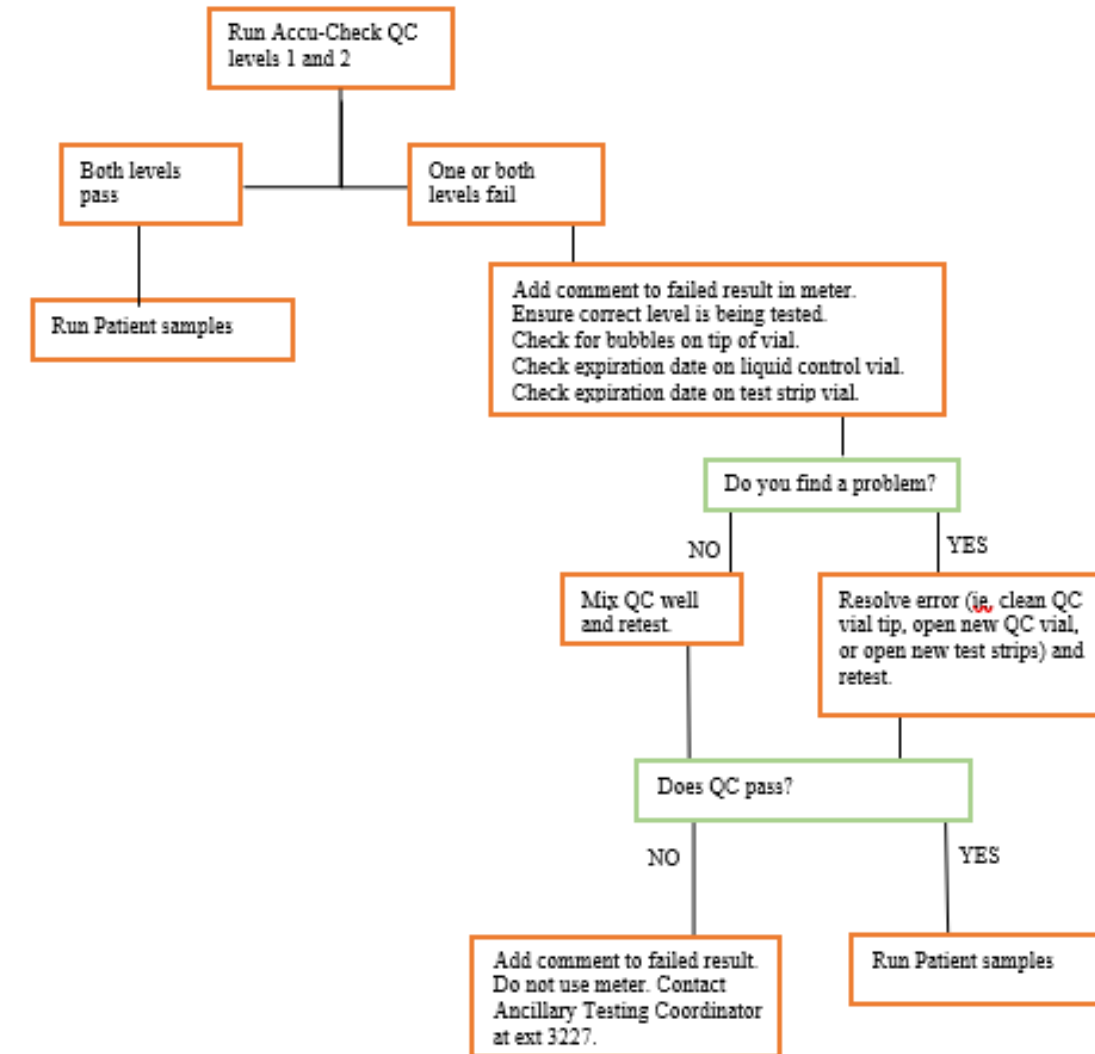
Troubleshoot:

- Ensure there are no bubbles present at tip of control vial when performing test. Mix samples adequately.
- Check expiry dates, mix/change QC solutions & test strips.
- Contact ATC in the lab to report fault and obtain replacement meter.

If meter continues to fail DO NOT use it!

QC failure Flowchart

Accu-Check QC Troubleshooting Flowchart



*Do not test QC more than 3 times. If it continues to fail call Ancillary Testing Coordinator at ext 3223 for questions.

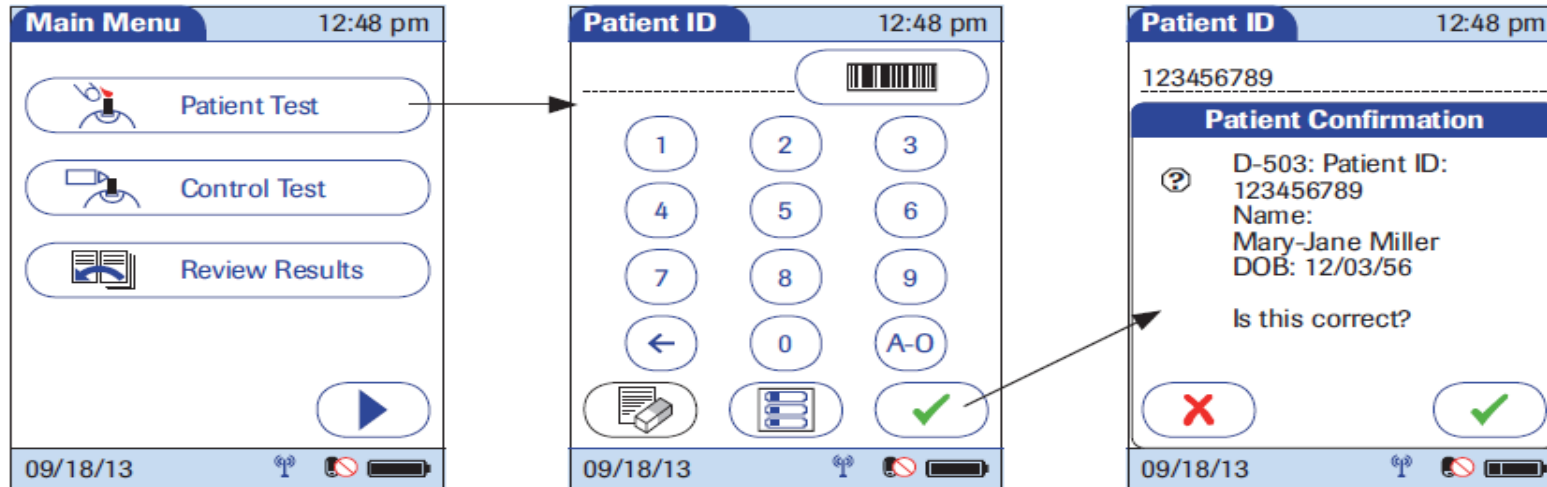
Quality Control Review



- Checks accuracy of test strips and Inform Meter.
- Level 1 & 2 controls **MUST** be analysed **every 24 hours** – otherwise the user will be locked out for testing patient samples.
- The meter will “lock” when QC reaches manufacturer expiration.
- Expiration date must be on control reagents. (Good for 90 days unless expiration date on bottle is earlier.)



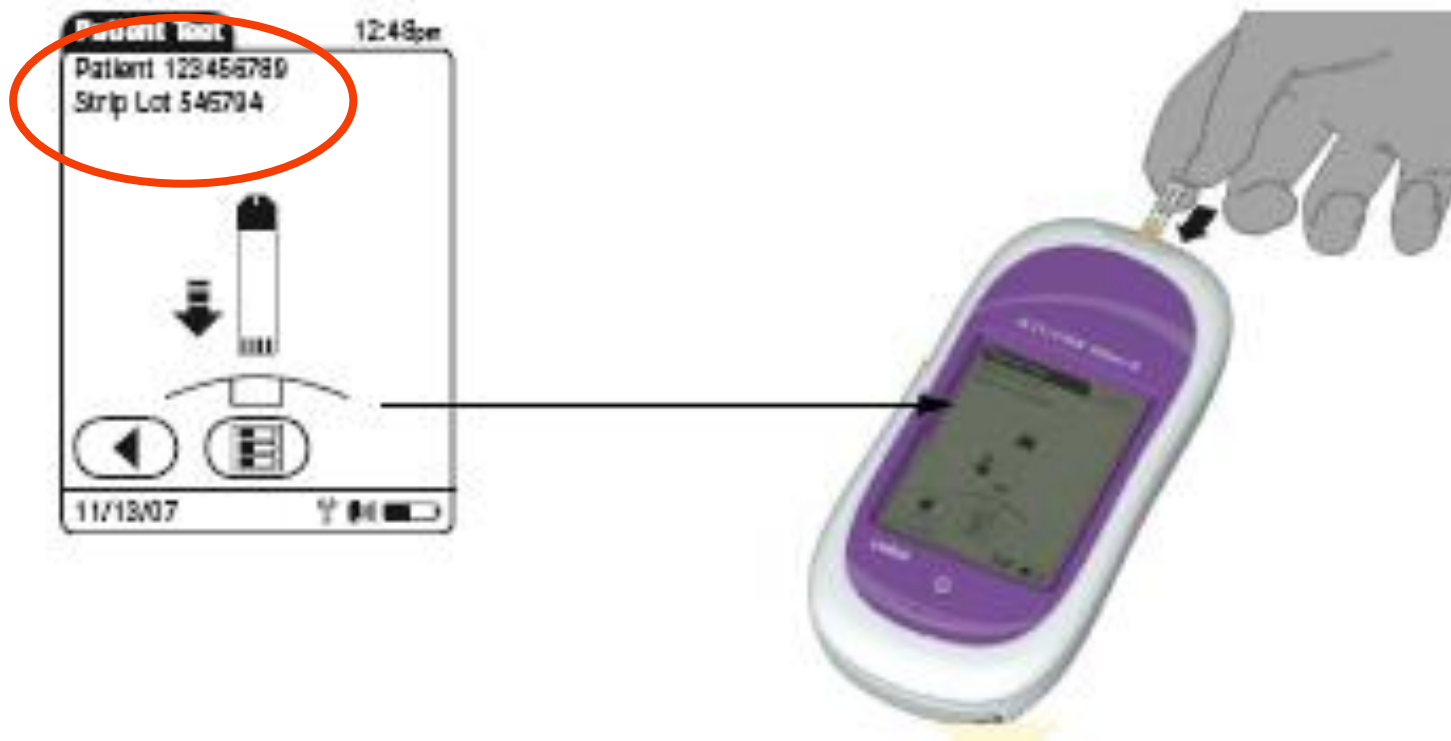
Patient Testing



1. Perform hand hygiene. Select, prepare and organize equipment
2. Log in to meter
3. Identify patient. Press the barcode and scan patient badge.
 - a. If patient does not have badge, type the correct ID number using the keypad and press the check mark.
4. Press the check mark if the patient ID entered is correct. **ALWAYS** confirm patient name and date of birth prior to testing!
 - a. If not correct, press the “X” and re-enter.

Patient Testing

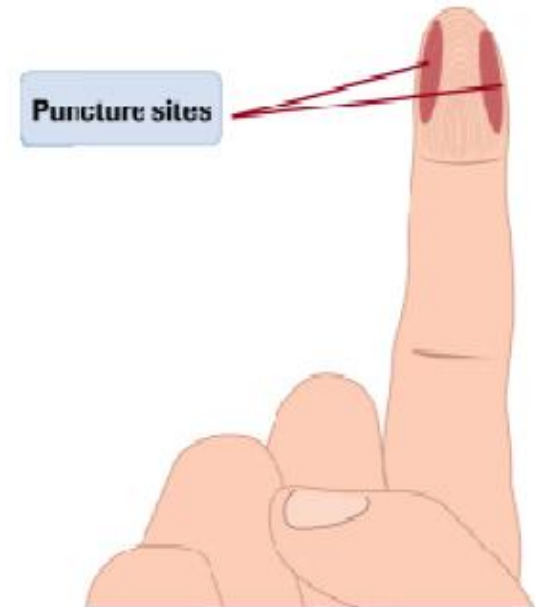
5. Press the barcode and scan the test strips.
6. Review the test strip lot number and verify the patient ID at the top of the screen
7. Insert test strip.



Patient testing



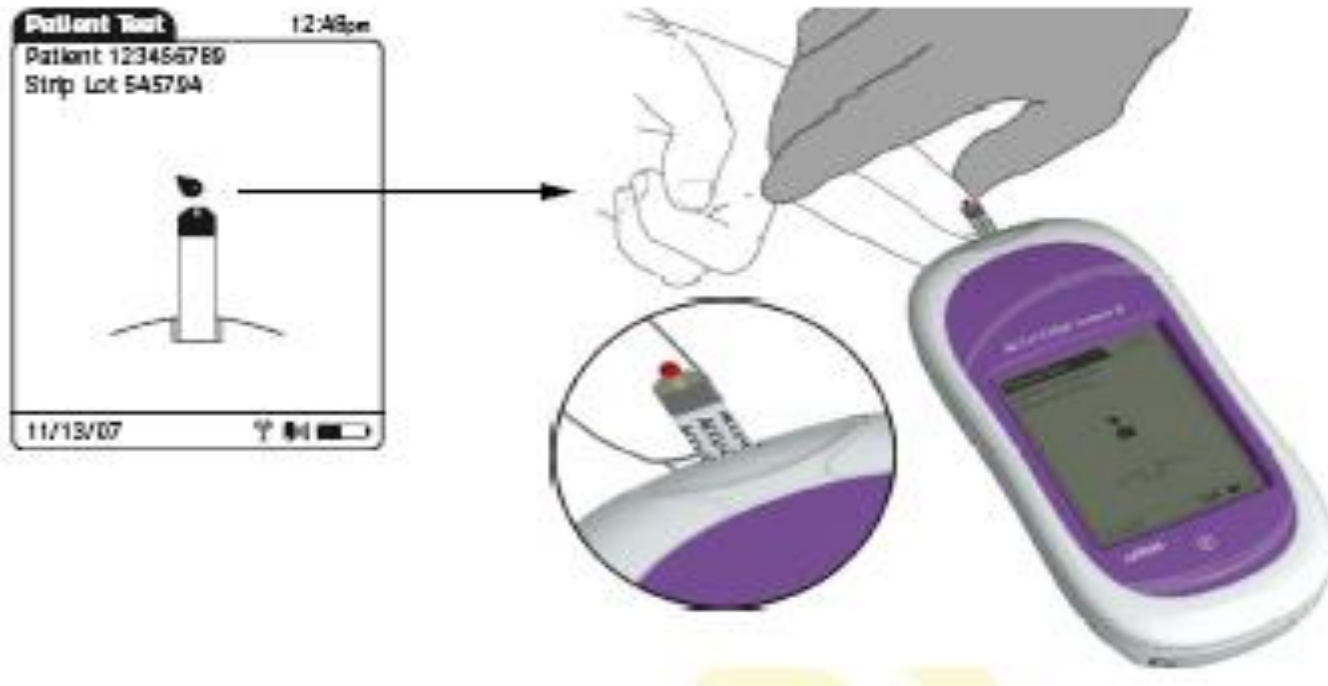
8. Put on gloves
9. Select site for skin puncture
10. Clean and dry the site*
11. Hold finger firmly, position the lancet on the site and depress the plunger to make puncture. Remove and discard lancet in puncture resistant needle disposal unit.
12. Apply gentle pressure toward the site to create a drop of blood at the puncture site
13. Wipe the first drop of blood from the puncture site, using gauze. **Use the second drop of blood** to add to the test strip.



*Note: Site needs to be clean and dry otherwise it interferes with the accuracy of the result. Avoid contamination by food, dilution with water, alcohol and to reduce risk of infection.

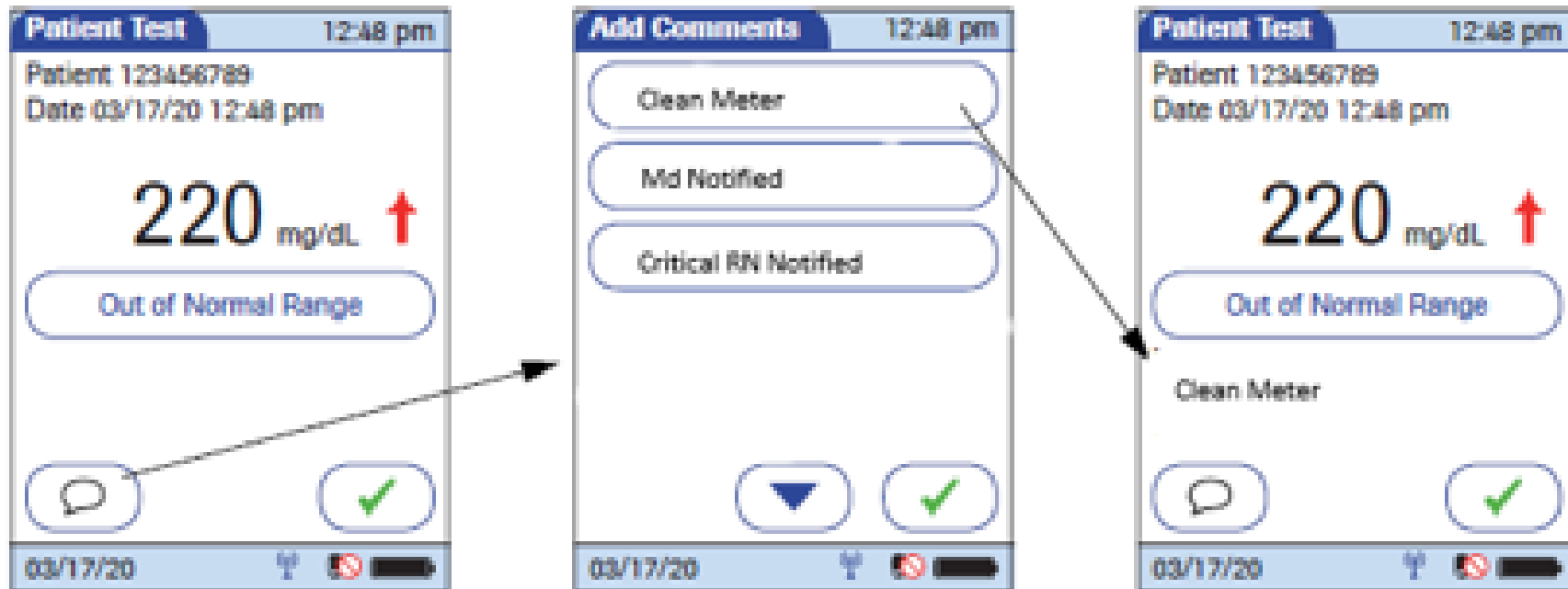
Patient Testing

14. Apply patient blood when prompted. Always perform a visual inspection of the yellow test area, if it is discoloured use another strip.



Patient Testing

15. Review results and add Clean Meter comment and critical comments if necessary
16. Click the check mark to accept the results with comment.
17. When complete, remove gloves and wash hands
18. Log out, clean and dock the meter



Normal Result Range



- Normal Range: 71 – 109 mg/dL
- If value is not consistent with patient symptoms it should be verified with a blood draw from the lab!

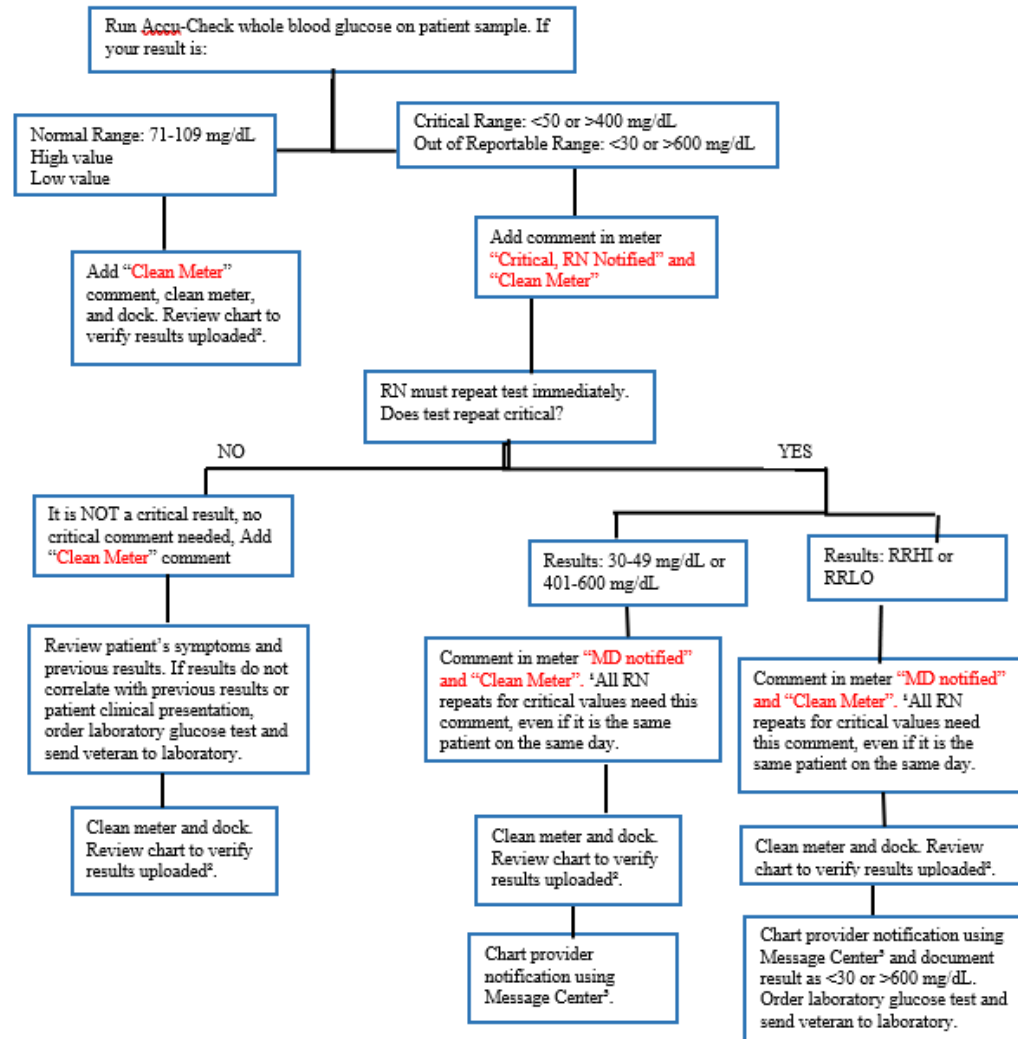
Critical Result Range



- Critical Range: <50 and >400 mg/dL
- All critical results MUST have the comment “Critical RN Notified” and be repeated by an RN immediately.
- All repeated and confirmed critical results MUST have the comment “MD Notified”
- Enter chart note for Critical Point of Care (POC) Value Notification.
- If result is outside measuring range of <30 or >600 , report as less than or greater than. It is recommended to verify with a blood draw from the lab.
- *DO NOT report actual values <30 or >600 .

Resulting Flowchart

Accu-Check Glucose Result Reporting Flowchart



¹Comment must be entered on result for EVERY critical value. MD must be notified, and documentation entered about the notification per laboratory protocol.
 ²Valid results are uploaded to RALS when the meter is docked, then results transmitted into the Cerner patient chart. Results will be delayed in RALS if results do not have the proper comments attached or have invalid comments attached.
 ³Refer to the *Entering Critical POC Result Comments* help guide for chart documentation.
 Refer to procedure for additional details or call Ancillary Testing Coordinator at ext 3223 for questions.

Reviewing Results

- From Main Menu – select “Review Results”
- All results are displayed on screen – Patient & QC
- Select “Patient” – to view patient results (scan ID to search)
- Select “QC” – to view QC results
- Select list icon to back to the Main Menu

Glucose Results 12:48pm

All -- 10/12/07

Time	Result	ID
12:15pm	8.5	123456789ABC
10:32am	6.7	543444789222
8:25am	11.0	QC L2
8:20am	4.5	QC L1
7:45am	8.0	Linearity L4

11/13/07

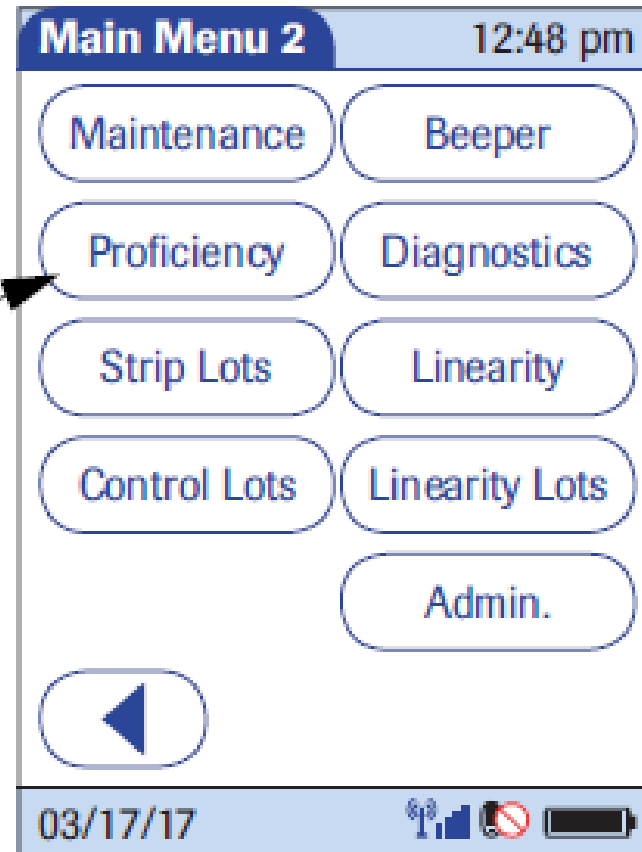
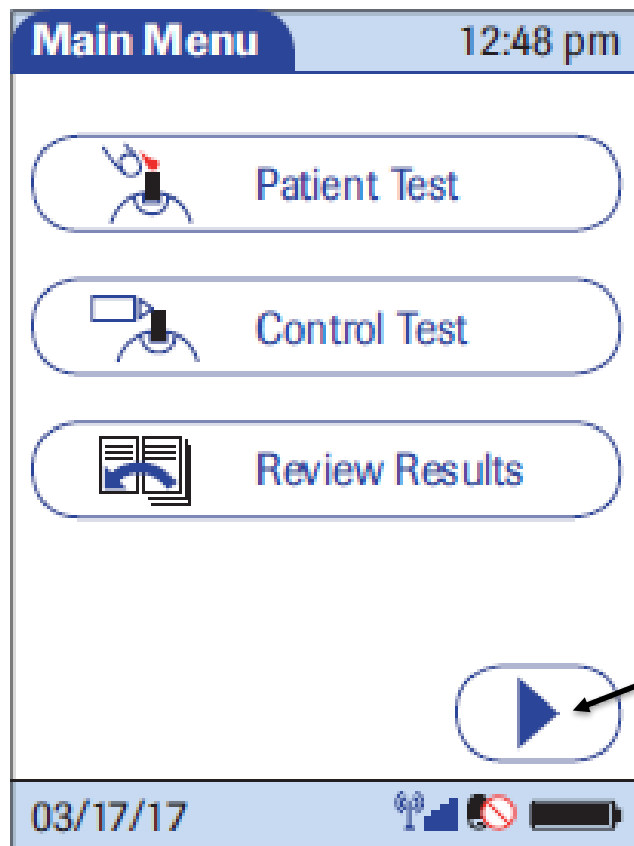
Navigation icons: Patient, QC, Up arrow, Left arrow, List icon (circled in red), Right arrow, Signal strength, Battery level.

Performing proficiency testing



1. Press “Arrow” to access menu

2. On Main Menu 2, Press “Proficiency”



Performing proficiency testing



3. Enter name of proficiency test with keypad.
4. Press the green check
5. Scan test strips and run test
6. Record results on paperwork
7. Sign Attestation sheet if provided.



KIT 35672245 4 01 21

Page 1
Results are due no later than midnight, Central Time:
July 05, 2022

CAP # 2454701 - 01 SEQ # 01
Products:HCC2
Southern Oregon Rehabilitation Center and Clinic
Aaron Selken MT(ASCP)
TEL# 1-541-826-2111 ext, 3255 FAX# 1-541-830-7457

Waived Combination Survey Result Form

Important
You must submit results online. Emailed, faxed, or mailed results are no longer accepted.

© CAP 2022

Results - Whole Blood Glucose		
Instrument Code	010 <input type="text" value="3431"/>	010 <input type="radio"/> 101 mg/dL <input type="radio"/> 107 mmol/L
		010 <input type="radio"/> 11 <input type="radio"/> 22 Exception Code <input type="radio"/> 33
WB-01	WB-02	WB-03
010 <input type="text" value=""/>	010 <input type="text" value=""/>	010 <input type="text" value=""/>

Cleaning the Meter

- It is a requirement that the meter be cleaned and disinfected **after each patient use** using a 2-step process.
- Use the manufacturer approved wipes.
- Wring wipe out before use.
- Protect the strip port from moisture.
- Dry completely before docking.



Meter Troubleshooting

[If your meter is frozen or acting finicky you can reset it.](#)

Resetting meter:

Remove from base. Hold power button for 20 seconds. Release power button. The meter should power on then off. Dock meter and continue with testing.

[If you notice the meter is not charging or there is a buzzing sound then the charging base needs some TLC.](#)

Ensure contacts on meter and base are clean. Sometimes the metal contacts on the base become recessed. You can take a pen tip and lightly pull the contacts out. In the event you still hear buzzing, try switching the meters on the charging stations.

Troubleshooting (cont.)

If there is a red light on the base that doesn't go away.

Interface issue. ITOPS may be working on it but if the light stays red then there is a problem that the ATC and ITOPS need to fix.

In the event that the meter will not cooperate, notify the ATC.

If both meters are inoperable during evening, night, and weekend hours contact Roche Technical Support **1-800-440-3638**.

CONTACTS



Teresa Collins, Ancillary Testing Coordinator

teresa.c.collins@va.gov

541-826-2111 ext. 3223

Roche Technical Support

1-800-440-3638

Aaron Selken, Laboratory Manager

541-826-2111 ext. 3255



References

Roche Diagnostics. *Accu-Check Inform II Operator's Manual Version 7.1* 2020.

VA SORCC Clinical Laboratory. "Accu-Check Inform II CBG Procedure Manual." 2023.