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Diagnos**t**ics

# Accu-Chek Inform II Blood Glucose Monitoring System



Ancillary Testing Coordinator:

Teresa Grimes MLS (ASCP)<sup>cm</sup>

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# 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 testing, interpreting results, and troubleshooting.***
- ***It is a CAP and JCAHO 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 between patients, and wash or cleanse hands in between patients.
- Use single use Lancet and discard in approved sharps container after use.
- Disinfect Accu-Chek glucose meter after each 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 mean arterial pressure of less than 60mm Hg or systolic pressure less than 90mm Hg 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%mm Hg), 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 presents 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.



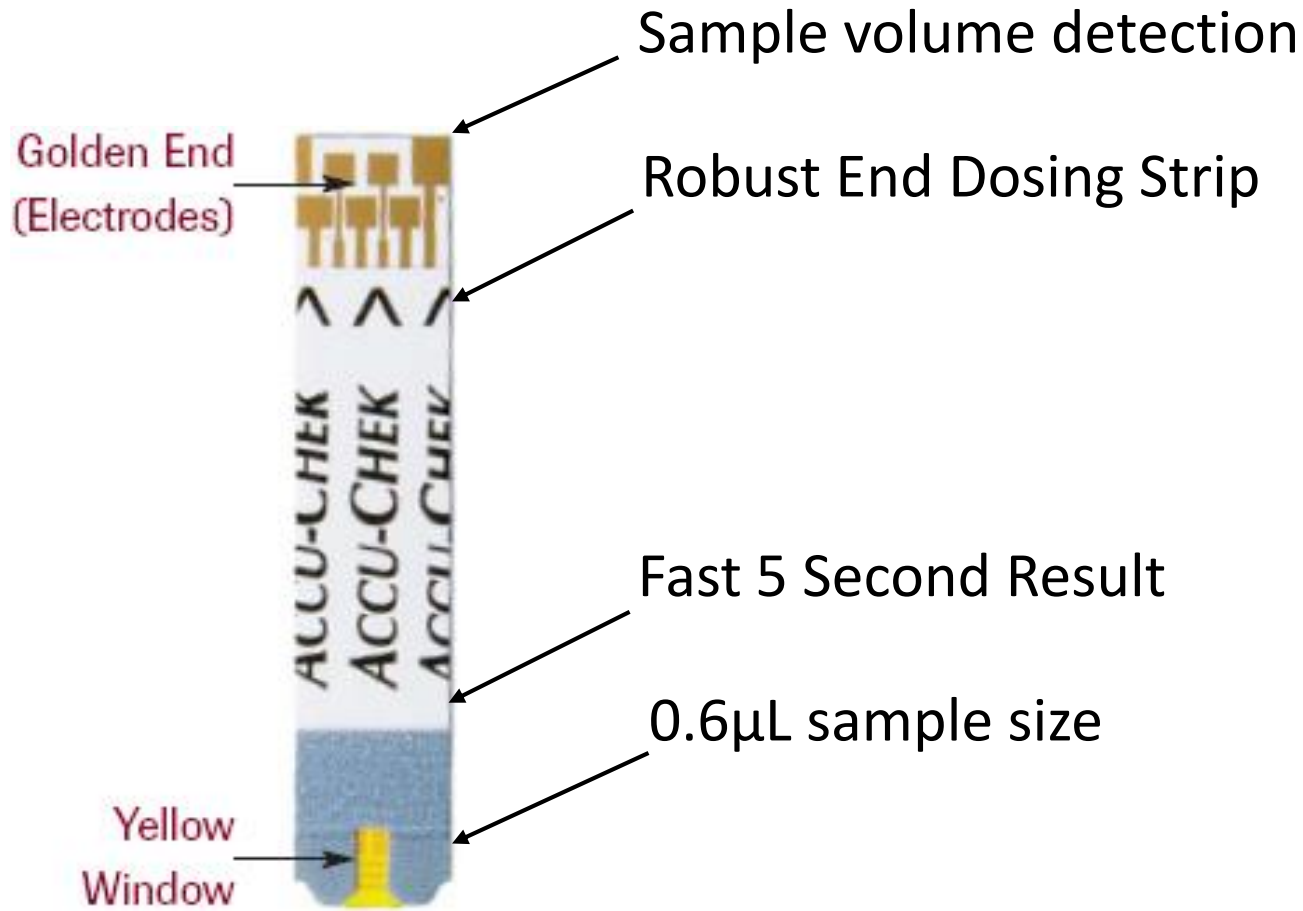
### \*Reagent Strips:

Once opened, test strips are good until expiration date on bottle.



# 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.

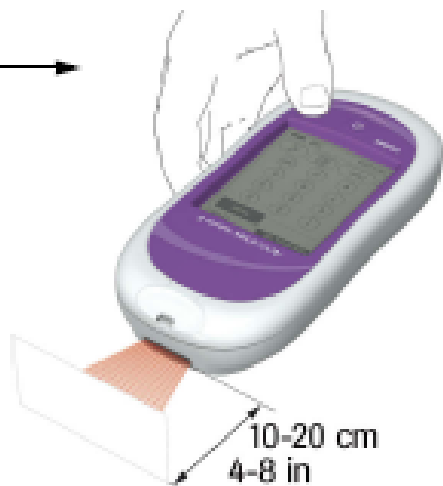
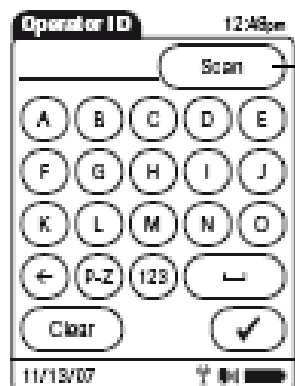


# Start Up – User Identification



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

**2** The Power Up screen appears.

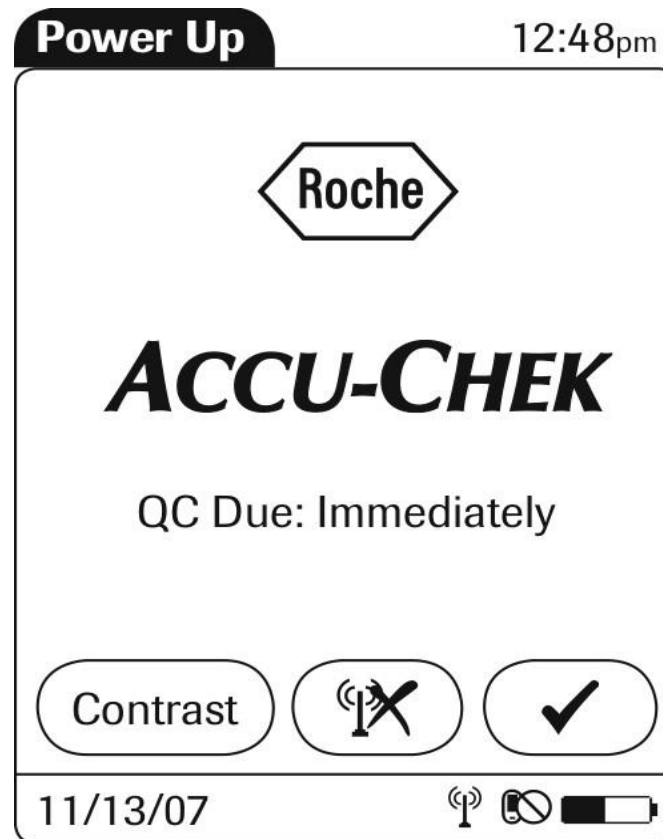
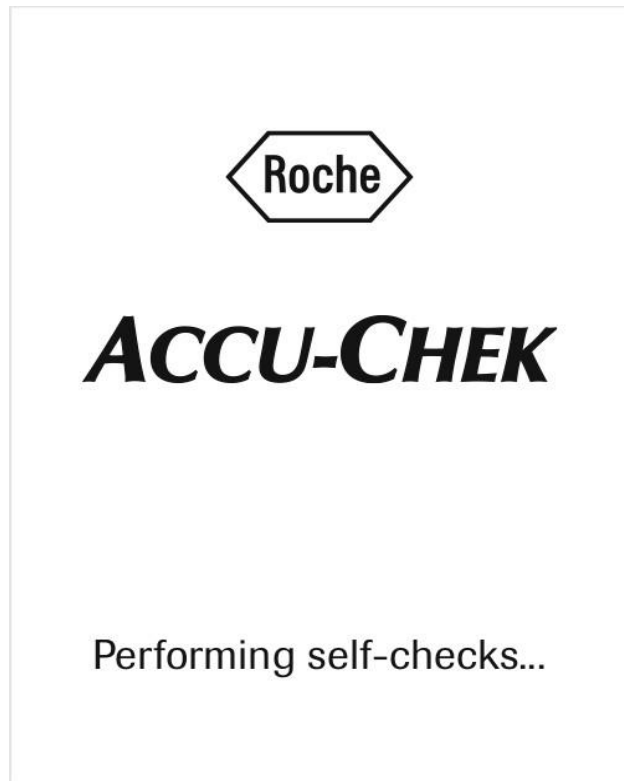


- User ID is 4 digits long (last 4 of SSN)
- User ID unique to user and compulsory for all activities
- DO NOT share your ID

# Accu-Chek Inform II

*Power up screens*

*You will see one of the following screens:*



# 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.

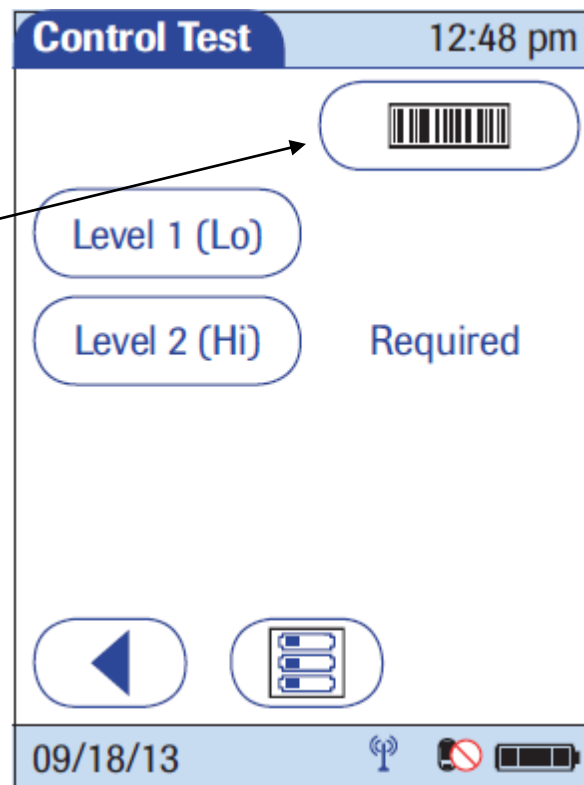
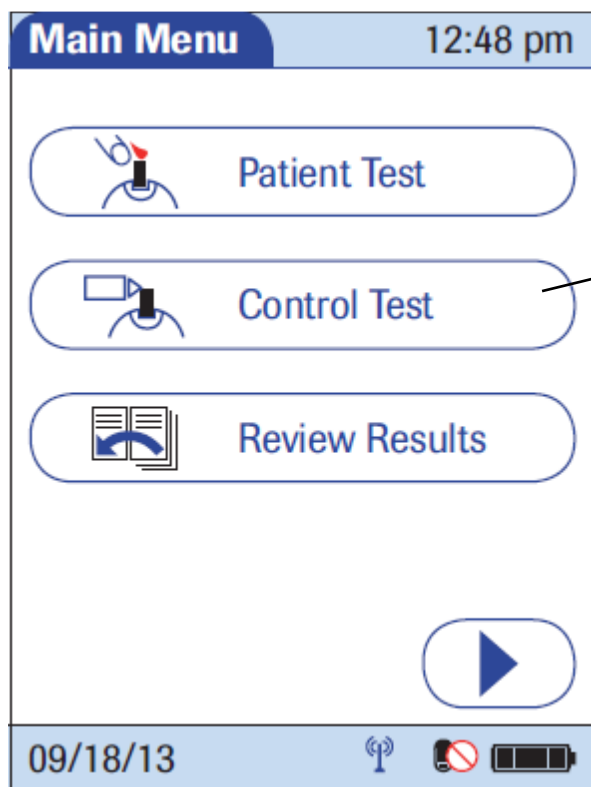
When you suspect erroneous results.

Anytime the meter has been dropped or mis-handled.

# Performing quality control

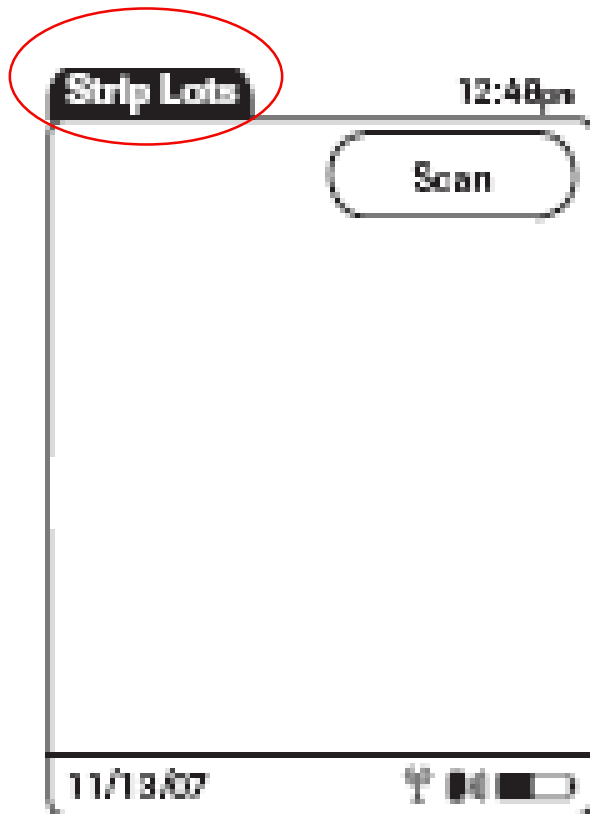
1. Press “Control Test”

2. Press barcode icon and scan control vial.



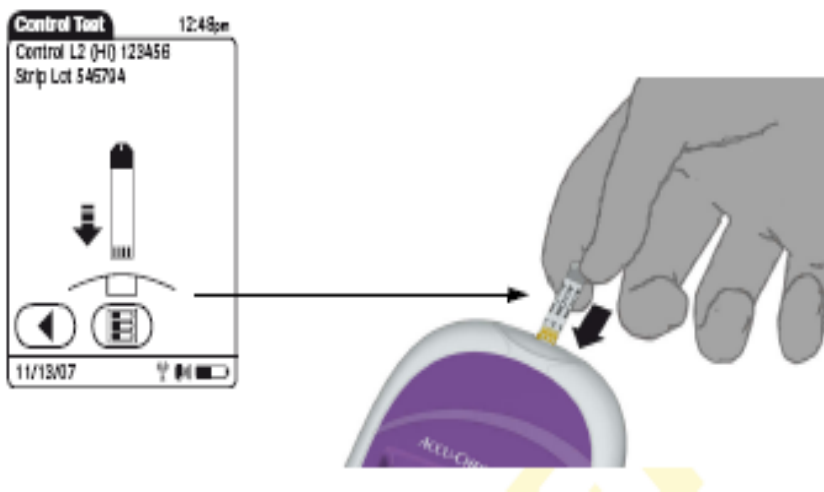
# Performing quality control

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

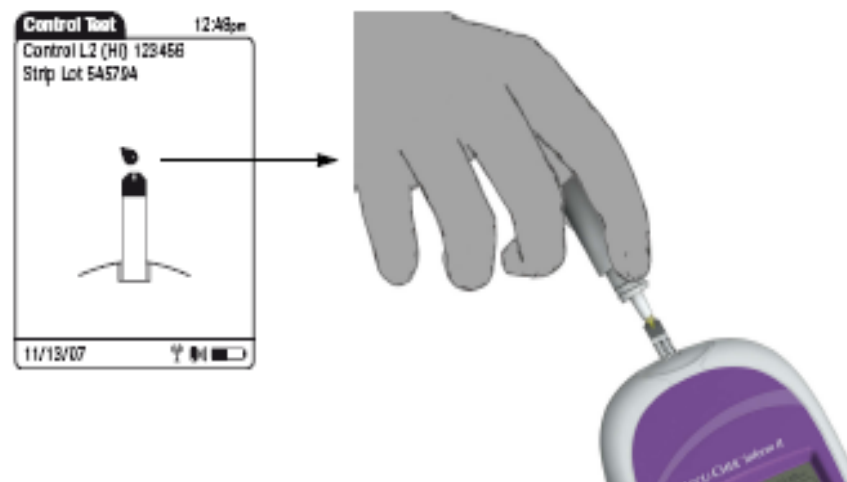


# Performing quality control

4. Insert strip.



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



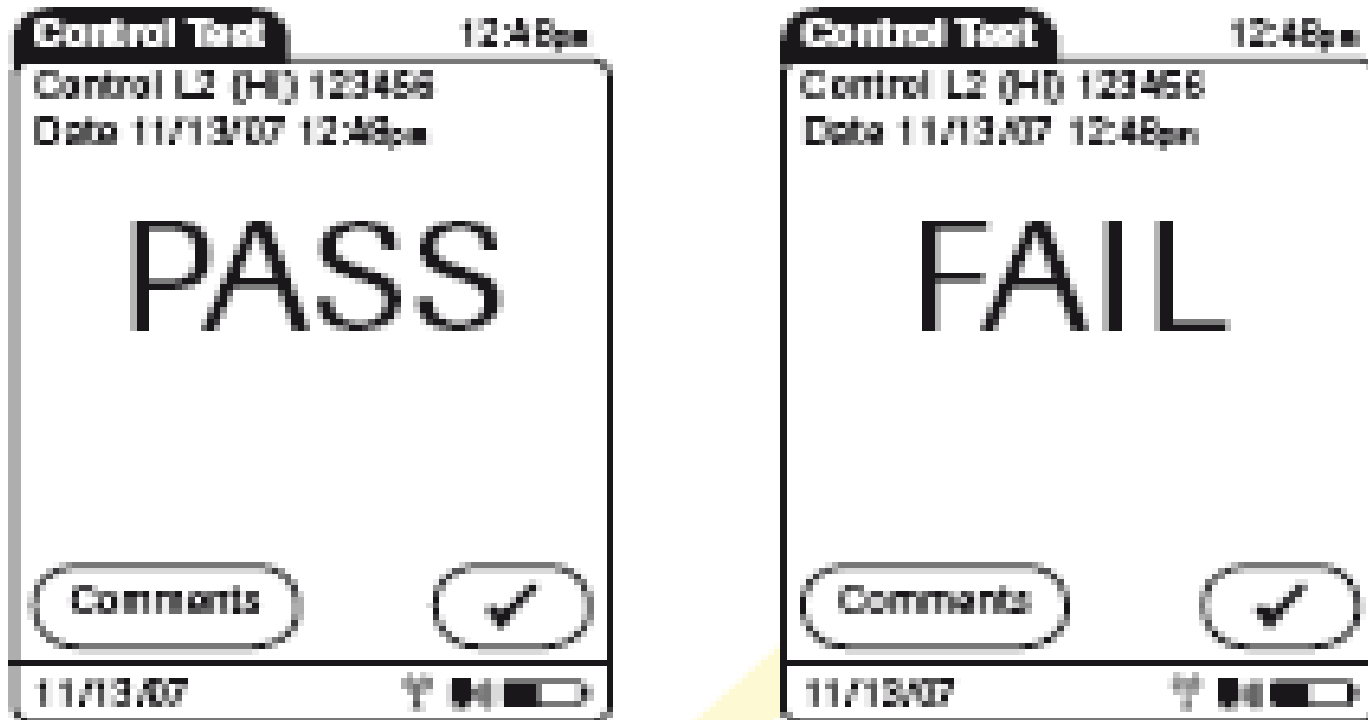
Note: Ensure you mix the QC vials prior to testing. Failure to mix is the main cause of QC errors.

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



Note: If using the lab meter you may see numerical values. Press the “Range” button to make sure QC result is within range.

# Failed Quality Control Test

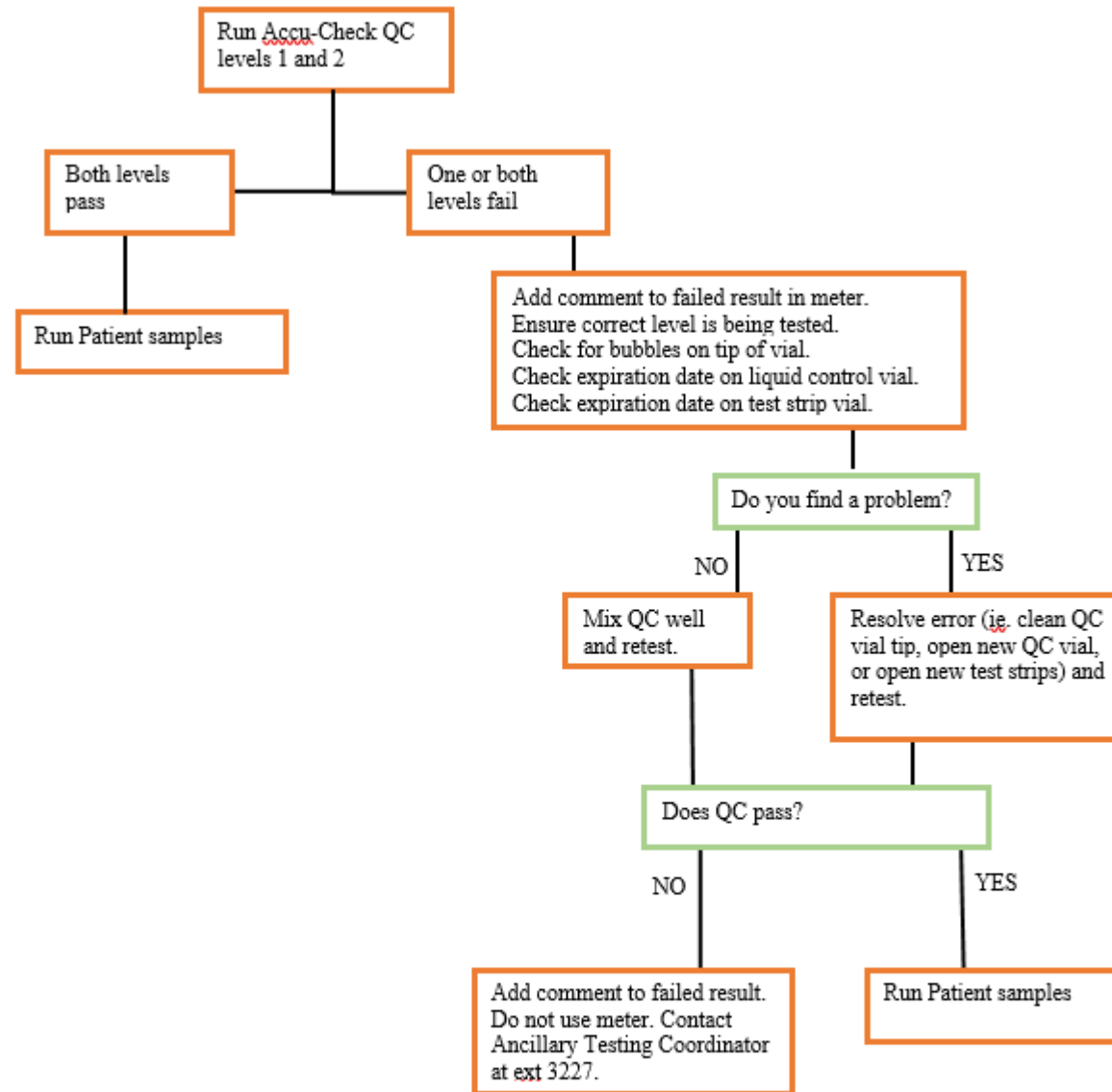
- Level 1 & 2 solutions must pass QC test.
- If test displays **FAIL**: Add Comment and repeat test.

## 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



\*Do not test QC more than 3 times. If it continues to fail call Ancillary Testing Coordinator at ext 3227 for questions.

# Quality Control Review



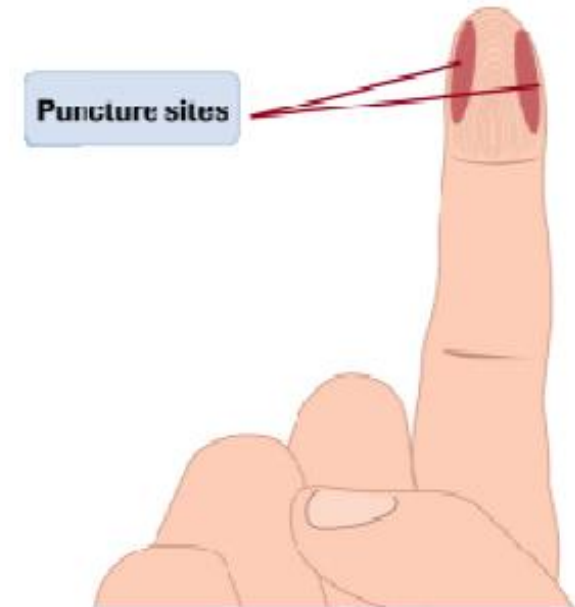
- Checks accuracy of test strips and Inform Meter.
- Level 1 & 2 controls **MUST** be analyzed **every 24 hours** – otherwise the user will be locked out for testing patient samples.
- The meter will “lock” when QC has expired.
- Expiration date must be on control reagents. (Good for 90 days unless expiration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



# Patient testing

1. Operator to wash hands
2. Identify patient
3. Select, prepare and organize equipment
4. Put on gloves
5. Prepare meter for testing
6. Select site for skin puncture
7. Clean and dry the site
8. Hold finger firmly

**\*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



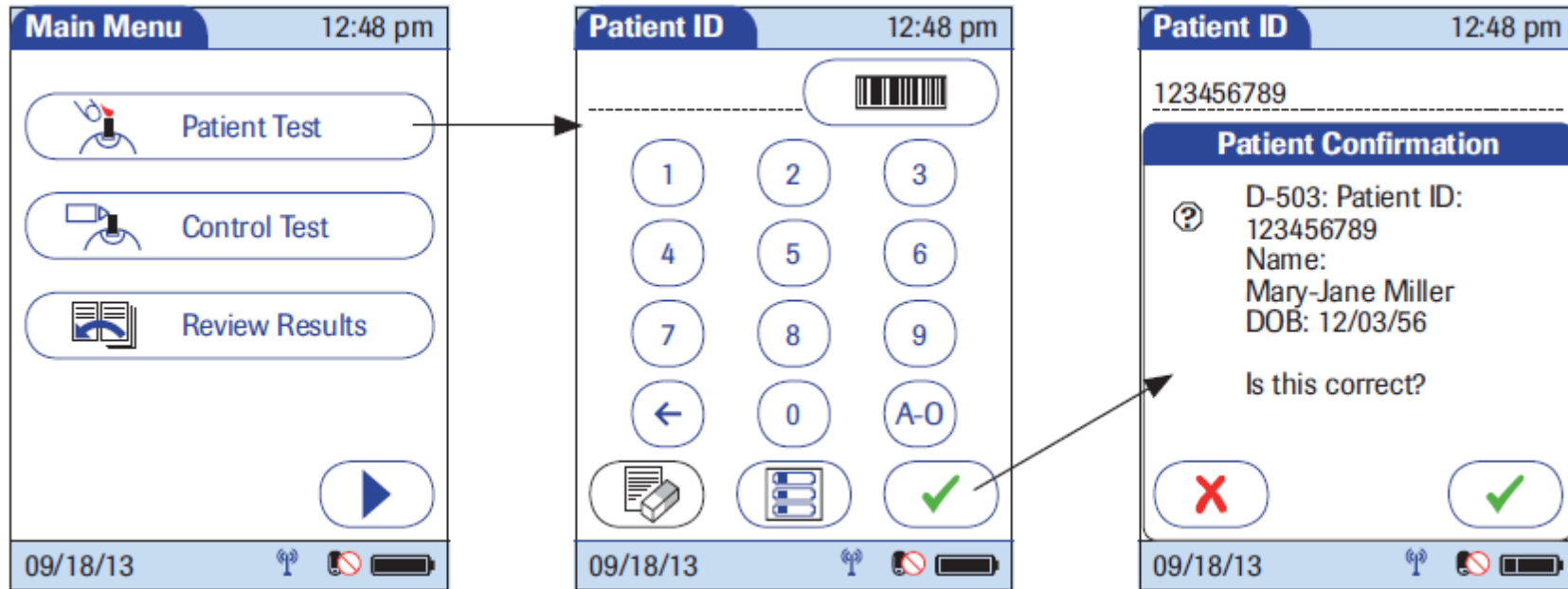
9. Position the lancet on the site and depress the plunger to make puncture and remove, discard lancet in puncture resistant needle disposal unit.

10. Apply gentle pressure toward the site to create a drop of blood at the puncture site.

11. Wipe the first drop of blood from the puncture site, using gauze. **Use** the second drop of blood to **add to** the test strip.

12. Run Test

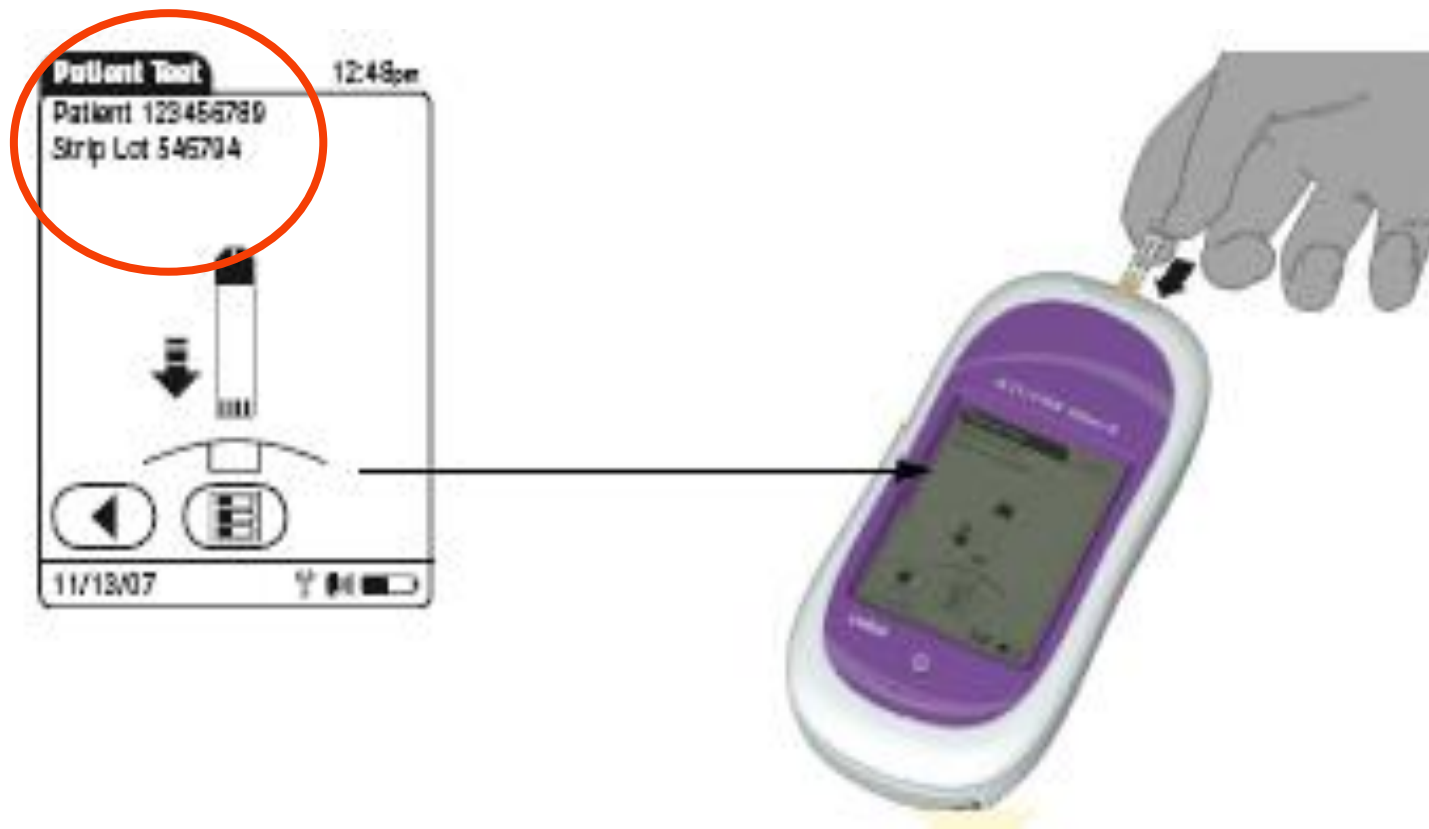
# Patient Testing



1. Select patient test from menu
2. Press the barcode and scan patient badge. (If patient does not have badge, type the correct ID number using the keypad and press the check mark.)
3. Press the check mark if the patient ID entered is correct. If not correct, press the “X” and re-enter.

# Patient Testing

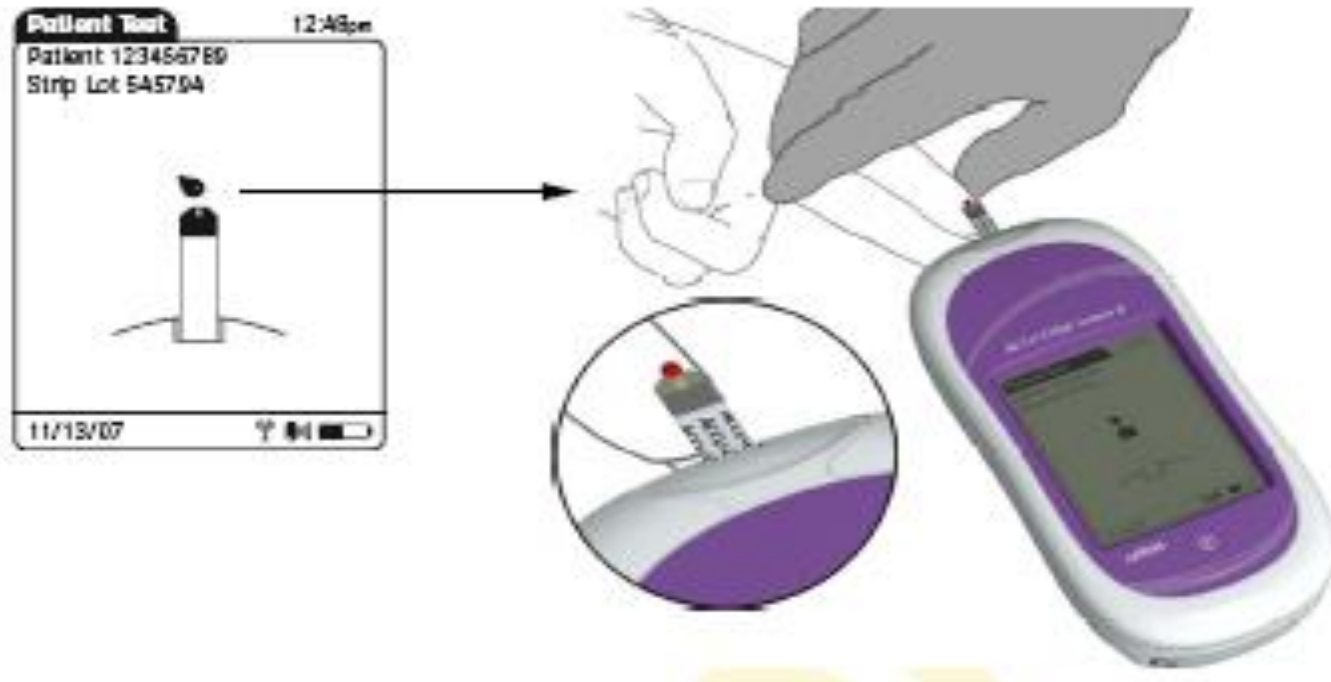
4. Press the barcode and scan the test strips.
5. Review the test strip lot number and verify the patient ID at the top of the screen then insert test strip.





# Patient Testing

6. Apply patient blood when prompted
  - \* Always perform a visual inspection of the yellow test area.
7. Review results, add comment if necessary
8. When complete, remove gloves and wash hands



# 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!

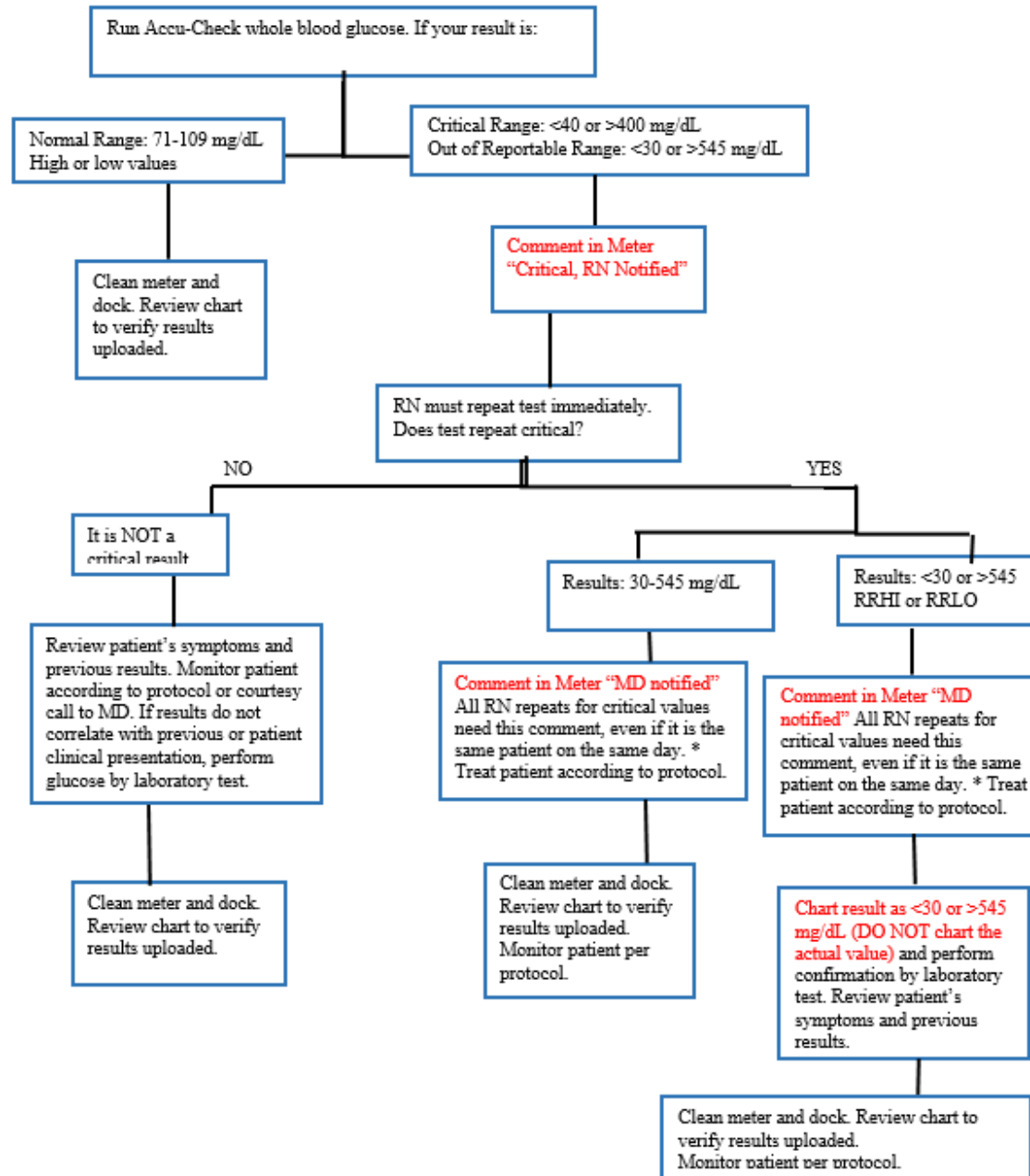
# Critical Result Range



- Critical Range:  $<40$  and  $>400$  mg/dL
- All critical results MUST have the comment “RN Notified” and be repeated by an RN immediately.
- All repeated and confirmed critical results MUST have the comment “MD Notified”
- Follow section protocol for critical glucose results.
- If result is outside measuring range of  $<30$  or  $>545$ , report as less than or greater than value. It is recommended to verify with a blood draw from the lab.

\*DO NOT report actual values  $<30$  or  $>545$ .

# Resulting Flowchart



# 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

Patient




QC

▲

◀



11/13/07

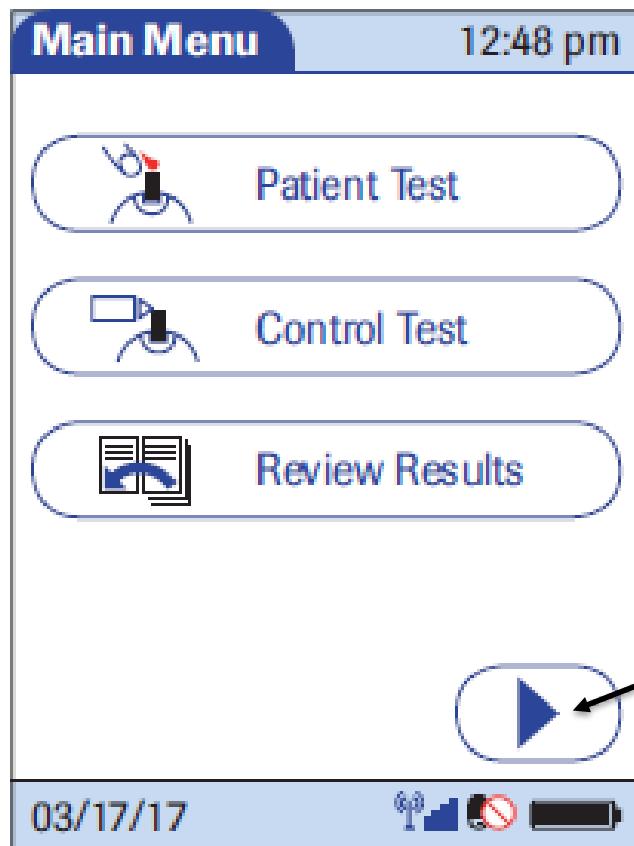




# Performing proficiency testing



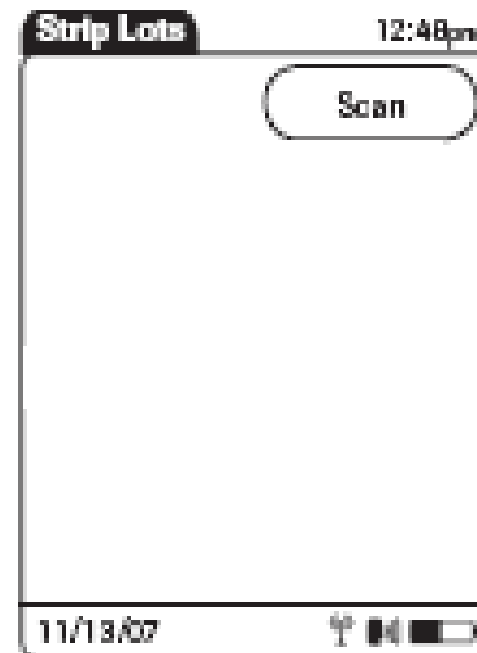
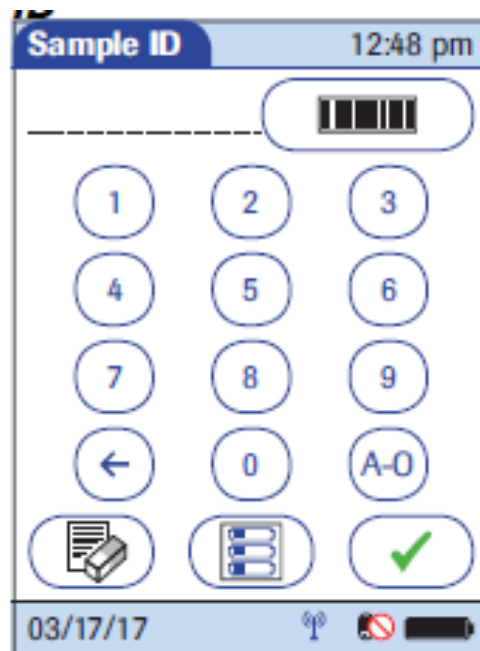
1. Press the Arrow to access menu 2

2. On Main Menu 2, Press "Proficiency"



# Performing proficiency testing

3. Manually enter the 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.



# Cleaning the Meter

- It is a requirement that the meter be cleaned after **each use**.
- Use the germicidal wipes approved by the facility.
- 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 or 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.)

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 Grimes, Ancillary Testing Coordinator**

***teresa.grimes@va.gov***

***541-826-2111 ext. 3223***

**Roche Technical Support**

***1-800-440-3638***

**Michelle Roberts-Maxwell, Laboratory**

**Manager**

***541-826-2111 ext. 3255***



# References

Roche Diagnostics. *Accu-Check Inform II Operator's Manual Version 4. 02* 2014.

VA SORCC Clinical Laboratory. "Accu-Check Inform II Procedure Manual." 07 2014.