

# STAT STRIP GLUCOSE METER



MAINTENANCE & USE

*nova*<sup>®</sup>  
biomedical



# Reminders To Trainers

- Introduce self and other trainers to attendees.
- Length of presentation: 20 to 30 minutes maximum.
- Ask attendees to record attendance by signing in.
- Ensure each attendee has following equipment:
  - Meter
  - Vial of Stat Strips
  - Vials QC Level 1 and 3 solutions
  - Paper towel
- Hand out Competency test to attendees.
  - Ask to date and sign
  - Inform that Return Demo must be observed by tester and signed off.
  - Remind attendees to retain and use for CRNM Competency



# Historical Background

- StatStrip meter first introduced in May 2006, by Nova Biomedical.
- StatStrip Glucose Meter rapidly becoming standard in accurate hospital glucose testing throughout USA and now Canada.
- New Stat Strip Glucose Meter and Strips chosen for province wide implementation.

*nova*<sup>®</sup>  
biomedical



# Advantages of New Meter

- Increased speed, accuracy, precision and patient safety for bedside glucose monitoring. Results are on par with central laboratory testing.
- Eliminates glucose errors due to:
  - hematocrit** interference (hematocrit errors of 20 to 50% reported on every glucose meter system except for Nova's StatStrip)
  - electrochemical** interferences by:
    1. Maltose, Galactose, Xylose
    2. Oxygen
    3. Acetaminophen (Paracetamol)
    4. Ascorbic acid
    5. Uric acid



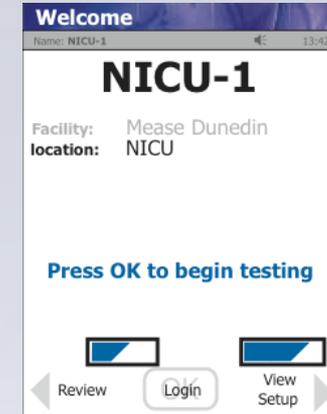
# Advantages of New Meter

- User friendly (simple, color touch screen operation) and simple operation.
- Fast results: 6 second analysis time
- Small 1.2 microliter sample (arterial, venous, capillary) results in easy sample acquisition and minimal pain for patient
- Requires no calibration codes thereby eliminating input errors.
- Linearity range of 0.56 to 33.3 mmol/L.

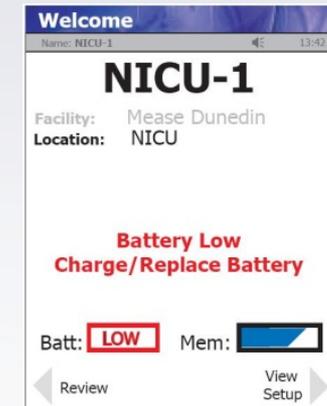


# Overview of Meter

- Strip port(well) at top of meter.
- Built-in barcode scanner at bottom of meter.
- “Welcome” or “Home” screen” indicates:
  - name of Facility and Unit
  - Icons for Battery and Memory



- Options at bottom of screen for:
  - > Review
  - > Log in
  - > View Setup



- Meter provides linearity range: 0.56 to 33.3 mmol/L. (superior to other meters)



# Color Touch Screen Operation

- Turn on: touch screen or press power button.
- Goes into “sleep mode” after 90 seconds if no data entered. Touch screen to wake up. Will retain your last data entry.
- Buttons and touch screen are interchangeable.
- Do not touch screen with end of pen or hard nails, use soft pad of finger tips. (prevents damage to screen).
- Blue dialogue box at top of screen will prompt user on next step.



# Data Storage (Memory)

- Patient tests: 1000
- QC tests: 200
- Users: 4,000



- In future, will be able to connect directly to EPR for transmission of result data and related patient information ADT



# Battery Information

- Rechargeable/replaceable lithium battery.
- Life: 6 to 8 hours in use (approximately 40 tests).
- Accessible at back of meter.
- Return meter to docking station when not using to maintain life of battery.
- To minimize danger of theft, this battery can ONLY be used in StatStrip Glucose meters.



# Changing Battery

- If you have a spare fully charged battery, it can be changed to allow for continuous operation. Press the Power Button to place the meter into **Sleep Mode**. This allows the operator approximately **20 seconds** to change the battery without losing the Date/Time settings.
- Push down on the two cover latches to release the cover. Take the battery cover off the back of the meter.
- Push up on the battery latch. Remove the drained battery.
- Replace with a fully charged battery. Replace the battery cover.
- Place the drained battery into the Charging Station.
- Dock the meter.



# Docking Station



- When the meter is not in use, place it into the Docking/Charging Station. This enables the meter to remain fully charged. In the future, it will connect the meter to the computer network.(future plans).
- The left light is **green** if the station is connected to the network. (future plans).
- The middle light flashes **green** if data is transferring. (future plans).
- The right light is **green** when the battery is fully charged or **amber** when charging.



# STAT STRIP (50 strips/vial)

- 24 month stability from date of manufacture. Expire in 180 days or 6 months when opened. Date vials with date opened and 6 month expiration date. Initial vial.
- Keep vial closed, strips affected by heat, light and humidity. Listen for SNAP that lid is closed.



# STAT STRIP (50 strips/vial)



## Features of Strip:

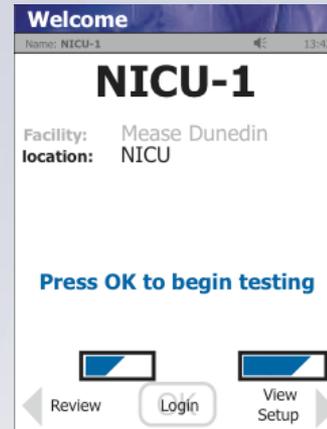
- Gold colored side is bottom surface of strip.
- Blue colored side is top surface.
- Gold metal end is inserted into meter well.
- White tip is end of strip. Sample placed to tip of strip (front fill). Multi-well technology.

*nova*<sup>®</sup>  
biomedical

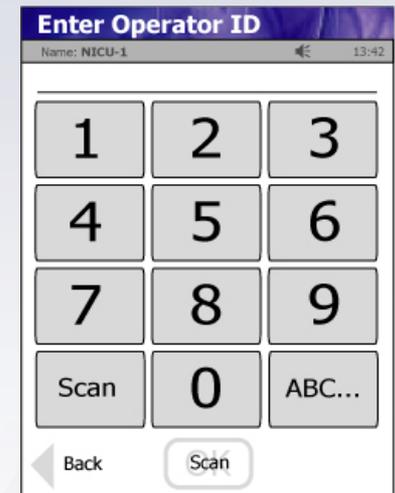


# TESTING BLOOD GLUCOSE

- Turn meter on/wake meter up. Touch screen.
- Go to "Welcome or Home Screen".  
Press **LOGIN**.



- Go to "Enter Operator ID" screen.  
Enter "1" for the Operator ID.  
Press **ACCEPT**.

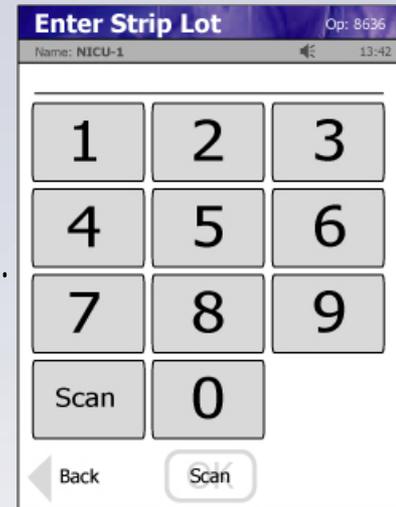


- Go to "Patient Test" screen .  
Press **ACCEPT**.

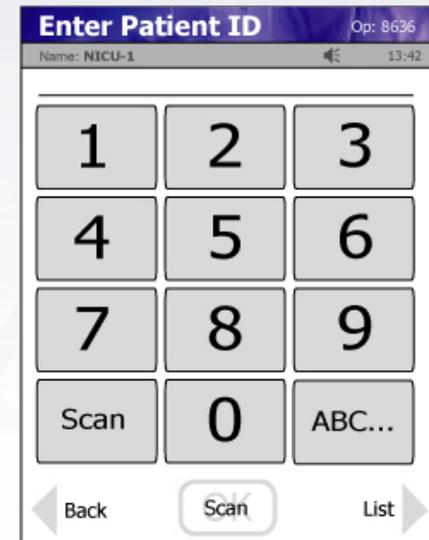


# TESTING BLOOD GLUCOSE

- Go to "Enter Strip Lot" screen.  
Scan the test strip lot bar code.  
Press and quickly release scan icon or OK button.  
(do NOT hold button/icon as meter may skip screens).

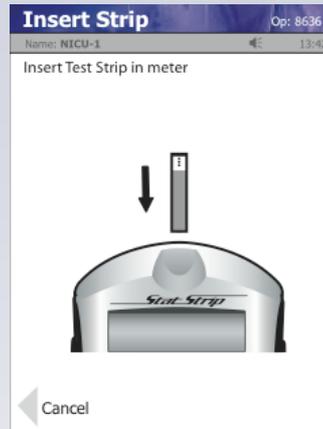


- Go to "Enter Patient ID" screen.  
Enter "1" for the patient ID.  
Press **ACCEPT**.

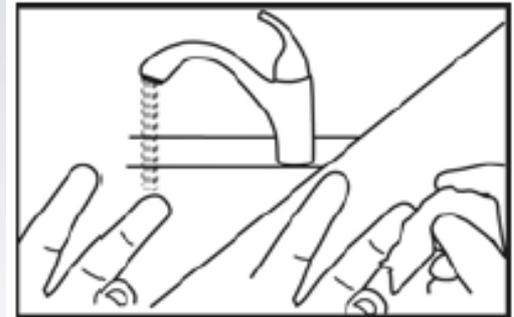


# TESTING BLOOD GLUCOSE

- Go to “Insert Strip” screen.  
Insert test strip into meter.



- Wash patient’s hand thoroughly and massage finger to stimulate blood flow.  
If using alcohol, ensure finger is dry before puncture.

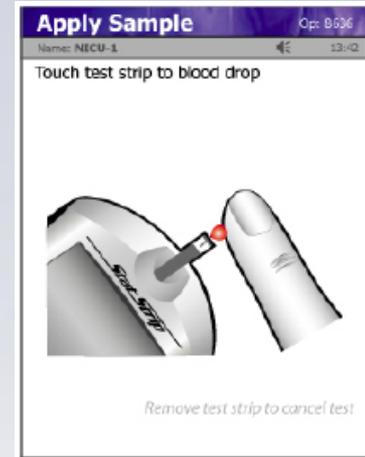


- Use safety lancet to puncture finger/squeeze finger to form blood drop.

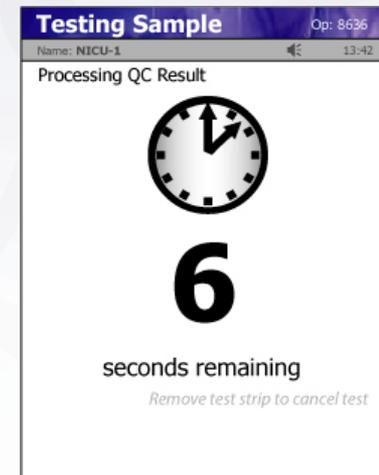


# TESTING BLOOD GLUCOSE

- Go to “Apply Blood Sample” Screen.  
Apply blood sample from patient to end of test strip.  
Place meter horizontal on bedside table or  
hold meter with wet test strip slanted downward.



- Go to “Testing Sample” screen.  
Wait 6 seconds for analysis. Do not touch blood droplet  
a second time if test strip does not fill completely.  
Discard strip and repeat.  
Meter allows 3 attempts to obtain sample if needed.

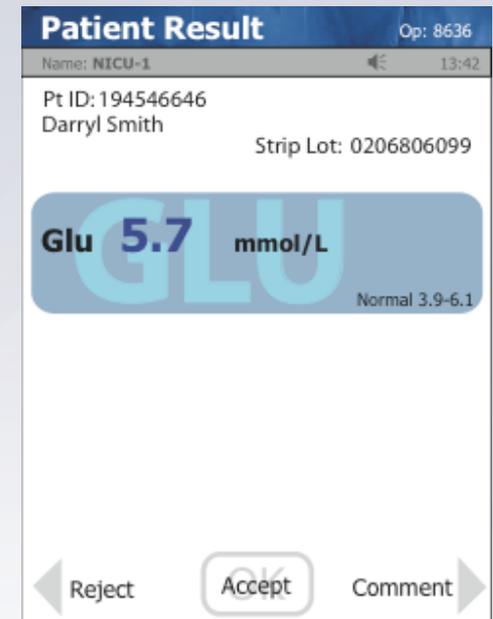


# TESTING BLOOD GLUCOSE

- Go to "Patient Result" screen.
- After result displays, remove and dispose of test strip.  
View result and document on appropriate record.  
To accept result, press **ACCEPT**.  
To reject result, press **REJECT**.

## Blood Glucose Results Appear:

- Normal range in BLUE.
- Low or High in RED with one arrow.
- Critical low or high in RED with two arrows.
- Log out. Clean meter and return to docking station.



# Viewing Other Test Results

- Go to "Patient Test" screen.
- Select **REVIEW**.

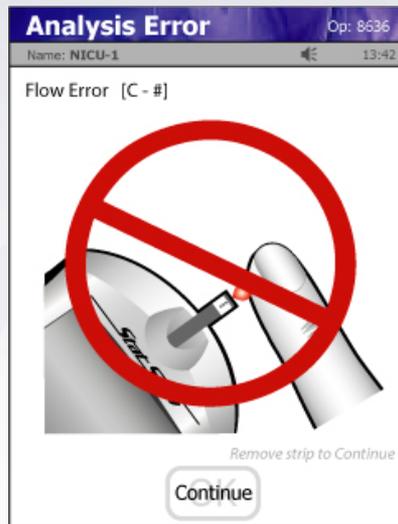


- Touch screen to highlight test result that you wish to view.  
(Ensure correct time and date sample was selected to view).
- Select **VIEW**.
- Use **up or down arrows** to view previous or next result.



# WARNING

- Test strip must fill completely upon touching blood droplet.
- If test strip does not fill completely, do NOT touch the test strip to the blood droplet a SECOND time.



- Discard the test strip and repeat the test with a new test strip.



# Points to Remember

- Hold meter 4 to 5 inches away from barcode when scanning.
- Do NOT hold meter upright when blood sample or QC sample is wet.
- Always pay attention to blue dialogue box at top of each screen to ensure you are on correct screen.



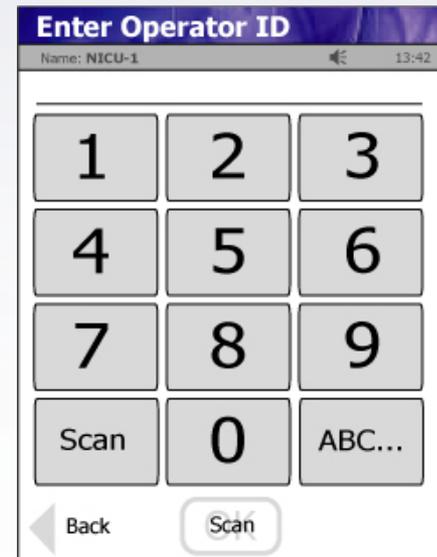
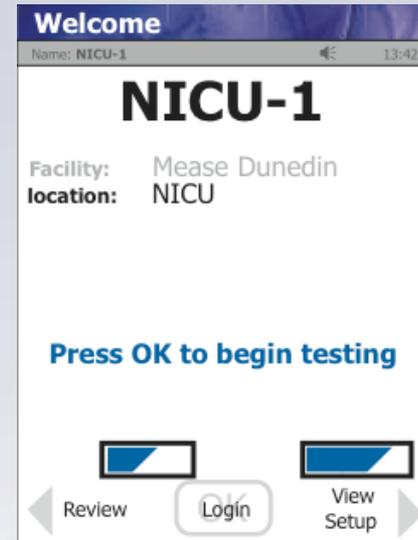
# Quality Control (QC) Every 24 Hours

- QC prompting 2 hours prior to scheduled time for QC.
- QC lockout if QC not performed every 24 hours. Meter will not allow patient testing until QC done.
- Must do QC with both Level 1(low) and Level 3 (high) glucose solutions.
- QC vial has 24 month stability from date of manufacture.  
Date QC vials when opened: 90 day or 3 month expiration after opened.
- Mix QC solutions vial prior to performing QC testing.
- QC result displayed as PASS or FAIL.



# PERFORMING QC

- Turn meter on/Wake meter up.  
From Welcome or Home screen,  
Press **LOGIN**.
- Enter "1" for the Operator ID.  
Press **ACCEPT**.

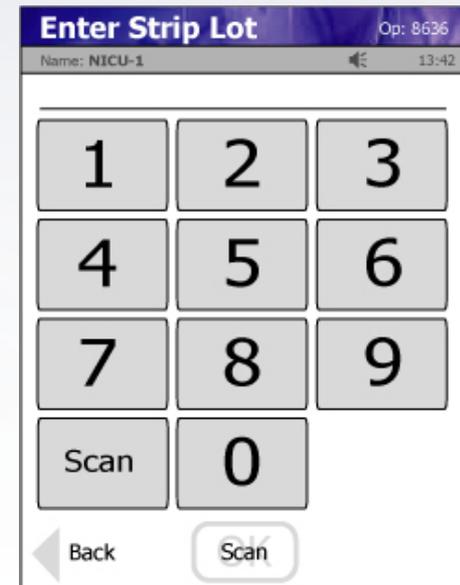


# PERFORMING QC

- Go to "Patient Test" screen, press QC icon.

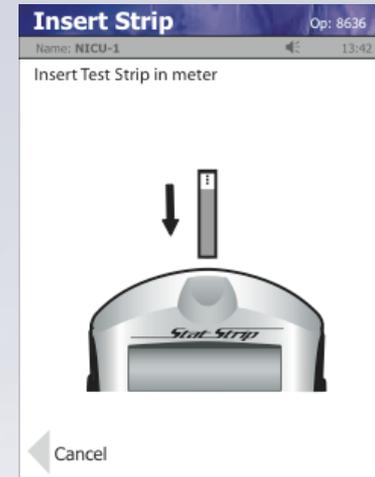


- Go to "Enter Strip Lot" screen.
- Press "Scan" or press OK If Lot # is correct.
- Scan test strip lot bar code.



# PERFORMING QC

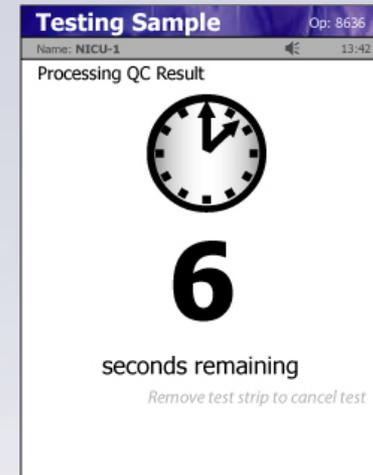
- Go to “Enter QC Lot” screen.  
Scan QC lot bar code.
- Go to “Insert Strip” screen.  
Insert strip in meter.
- Go to “Apply Sample” screen. Mix QC solution and place one drop from QC bottle to strip.  
“Let tip of strip sip the drip.”  
Keep meter horizontal.



# PERFORMING QC

- Go to "Testing Sample" screen.  
Wait 6 seconds for result.  
When result displays, remove and discard strip.
- Go to "QC Result" screen QC result will display as:  
PASS result appears in BLUE.  
FAIL result appears in RED.  
To accept result, press **ACCEPT**.  
Repeat process with second QC solution.

Note: If QC result is FAIL, check quality of QC solution used. Repeat QC test. If second FAIL result obtained, do NOT use meter. Send meter for maintenance.



*Stat Strip*<sup>™</sup>  
**Glucose Monitoring System**  
**Quick Troubleshooting Guide**

**1 Low Battery**



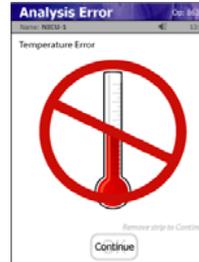
Change battery and place meter into charging/docking station.

**2 Test Strip Removed**



Test has been cancelled.

**3 Temperature**



Meter will only work in a temperature range of 59°-104°F (15°-40°C).

**4 Bad Sample**



Insert new strip and repeat test.

**5 Strip Rejected**



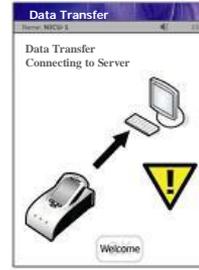
Occurs after test strip insertion or during analysis. Insert another strip and repeat the test.

**6 Flow Error**



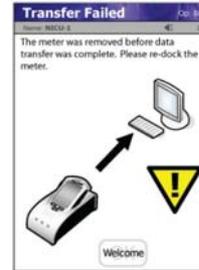
Either insufficient sample or the sample was applied incorrectly. Repeat test with a new strip.

**7 Transfer Failed**



Meter is unable to connect to the transfer computer. Check network settings, network status, or contact your administrator for assistance.

**8 Transfer Failed**



Meter was removed before data transfer was complete. Re-dock the meter.



# Cleaning the Meter (modified to meet WRHA Policy 90.00.040)

- Clean the meter with your Facility Approved Cleaner in a wipe format (eg. Oxivir TB) for a cleaning contact time of 1 minute and allow to air dry **after each patient use**
- When a monitor becomes visibly soiled it must be cleaned to remove all foreign matter, allowing contact with the cleaner for 1 minute. Once visible soiling has been removed repeat the above process with an approved wipe extending the contact time to the manufacturer's recommendation (eg Oxivir TB requires 5 minute contact time)

## **CAUTION:**

**DO NOT** immerse the meter or hold the meter under running water.

**DO NOT** spray the meter with a disinfectant solution



# QUESTIONS

?

*nova*<sup>®</sup>  
biomedical

