

# Nova StatStrip Blood Glucose Meter



**Administrative Policy# 205- Blood Glucose Testing  
Using the Nova StatStrip Glucose Hospital Meter**

**Nursing Core Orientation**

# Instructions:

- 1. Review the slides in this learning module**
- 2. Complete the quiz at the end of the module**
  - You will be given 2 attempts to score  $\geq 85\%$  on the quiz**



# Introduction: Parts of the Meter

- Touch screen...no power button!
- Screen sleeps after 90 seconds of no activity
- Check the Screen Title bar at the top for required information on each screen
- Login screen requires manual entry of 6-digit employee number
- Strip port located at the bottom
- Laser barcode scanner located at the top



*Remember: Do NOT point laser into anyone's eyes*



# The Meter



**6 second analysis time to complete patient test or QC test**

**Requires 1.2 microliters sample size**

**Wireless Download into Epic**

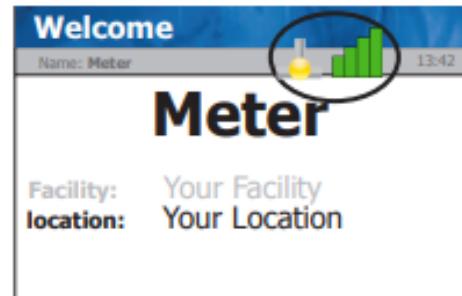
**Battery life = 8 hrs or 40 tests on full charge**

# The Docking Station

## Purpose

- Charges battery & spare battery- Dock meter when not in use!
- Enables meter to transmit results to the data management system and is a back up for wireless transfers
- Uploads patient operator and patient information

**Data transfers wirelessly** – Watch for the **yellow** icon for successful network connection and the **green** bar graph icon for connection signal strength



# Quality Control (QC) Testing

## Perform High & Low QC tests

At least every 24 hours  
**(Meter will lock if not completed)**

If results contradict clinical symptoms

If meter is dropped

## Control solutions

expire **90 days** after opening or on the printed expiration date (whichever comes first)

Write expiration date on bottle

Unopened are good until manufacturer's expiration date

## Test strips

expire **180 days** after opening or on the printed expiration date (whichever comes first)

Write expiration date on bottle



A piece of clear tape may be placed over the handwritten expiration date to prevent the date from smudging, wiping off, or fading.



# QC Testing

**Shake solutions  
gently before  
applying**

**Sample is  
drawn into tip  
of strip by  
capillary action**

**Hold meter  
level or  
pointing  
downward for  
sample  
application**

## **What if the QC test fails?**

- Add comment before you accept result
- Ensure solution and strips are not expired
- Repeat test with new strip
- If test continues to fail- take meter to the lab for service



# Patient Testing



**1. Prep the patient's finger with alcohol & allow to air dry completely**



**2. Press lancet firmly against the side (not the middle) of patient's finger. Press the release pad on the lancet to deploy the small needle that punctures the skin.**



**3. Wipe away first drop of blood with gauze**



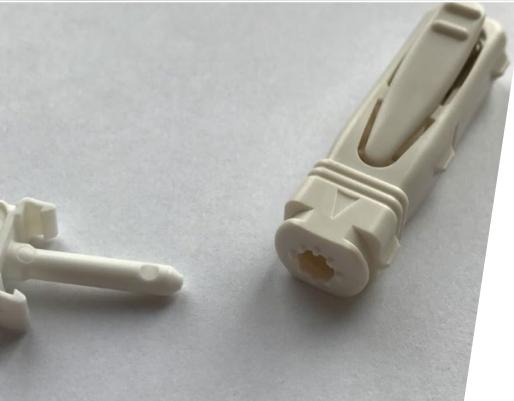
**4. Get a second drop of blood to form at the puncture site**



**5. Bring the tip of the test strip to the drop of blood and allow the test strip to fill completely**



**6. Apply pressure with gauze to the site and place a bandage around the finger if needed**



# Lancets

- **Single use**
- **Twist & pull cap**
- **Hold tight against the side of patient's finger and press release pad to activate**
- **After use, discard lancet in biohazard sharps container**



# Patient Testing: Key points to remember

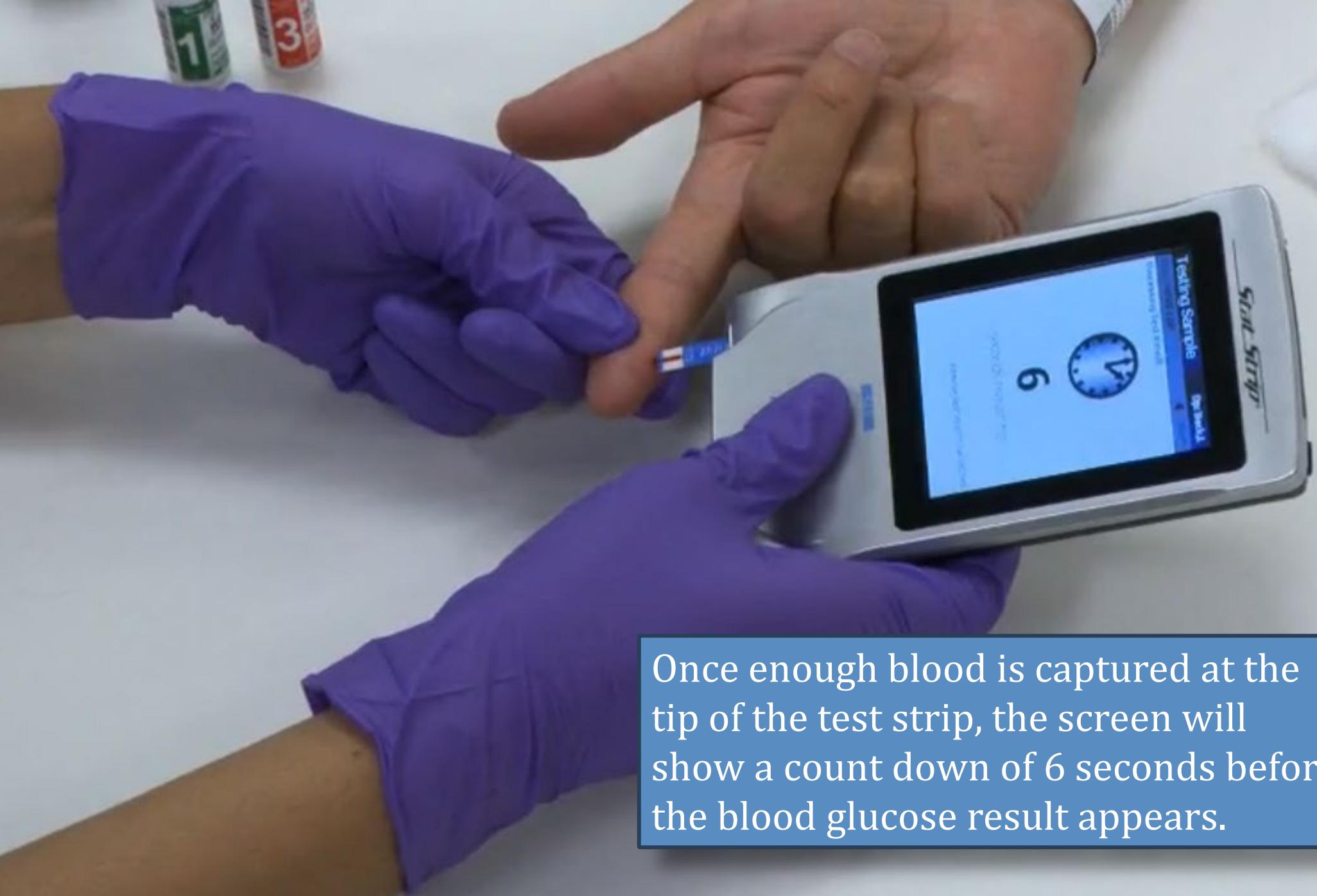
Do not use edematous (swollen), cyanotic (bluish from lack of oxygen), or infected sites

Use fresh whole blood

Do not milk the puncture site- apply gentle pressure

If the test strip does not fill completely, do not apply a second drop of blood to test strip—you will receive an error message.

If you receive an error message, take out the test strip and place a new strip in the meter. Then, apply a drop of blood to the tip of the test strip.



Once enough blood is captured at the tip of the test strip, the screen will show a count down of 6 seconds before the blood glucose result appears.

# Results Screen

## ■ Abnormal results



## ■ Normal results



# Patient Testing



**Do NOT use the patient's personal glucometer to perform a blood glucose test. A Covenant blood glucose meter must be used.**

**Routine blood glucose testing should be performed no more than 1 hour prior to meals**

# Patient Testing

- Nova StatStrip Glucose Meter is approved for use during states of low perfusion such as cardiac arrest
- A venous or arterial specimen is required— a capillary whole blood specimen (fingerstick) relies upon adequate, non-compromised capillary blood flow



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# Blood Glucose Result Reporting & Documentation



## NCA

For all adult and pediatric patients:

- NCAs must report all abnormal blood glucose values **<70 mg/dL** and **>180 mg/dL** to the appropriate licensed individual (RN, LPN) responsible for the care of the patient
- Notification of critical blood glucose values **<50 mg/dL** and **>440 mg/dL** **MUST be documented in EPIC and MUST include the full name of the licensed individual who was notified**

↓

Blood Glucose Monitoring	
\$ Glucometer Results	512
Height / Weight	<input type="text"/> Comment Entry <input type="button" value="X"/>
Weight	<input type="text"/> Comment:
Wt- Scale in Pounds	<input type="text"/> McKenna Benson RN notified of results
Weight Method	
Dosing Weight (only)	
Height	

Accept Cancel

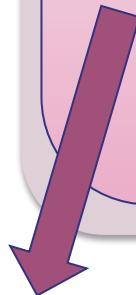
# Blood Glucose Result Reporting & Documentation



## NCA

### Birth Center:

- NCAs must report all infant critical glucose values **<45 mg/dL** and **>140 mg/dL** to the appropriate licensed individual (RN, LPN)
- Notification of these critical values **MUST be documented in EPIC and MUST include the full name of the licensed individual who was notified**



**Blood Glucose Monitoring**

\$ Glucometer Results	21	Comment Entry
Height / Weight	Comment:	
Weight	McKenna Benson RN notified of results	
Wt- Scale in Pounds		
Weight Method		
Dosing Weight (only)		
Height		

Accept Cancel

# Reportable Conditions

## **RN/LPN**

Notify physician for blood glucose levels:

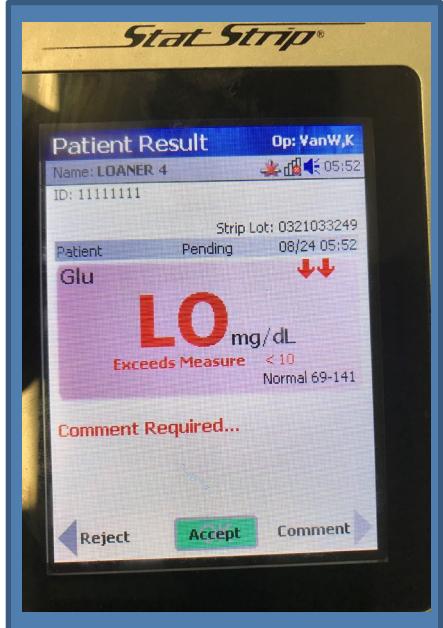
**> 180 for patients not on insulin**

or

**> 180 x2 despite current insulin treatment**

Critical Low  
 $< 10\text{mg/dL}$

Critical High  
 $> 600\text{mg/dL}$



Glucose testing results  $<10$  will display as “Low” and results  $>600$  will display as “Hi” on the meter screen—No value will appear.

You must manually enter critical high or low results as a comment in EPIC

# Meter Critical Values

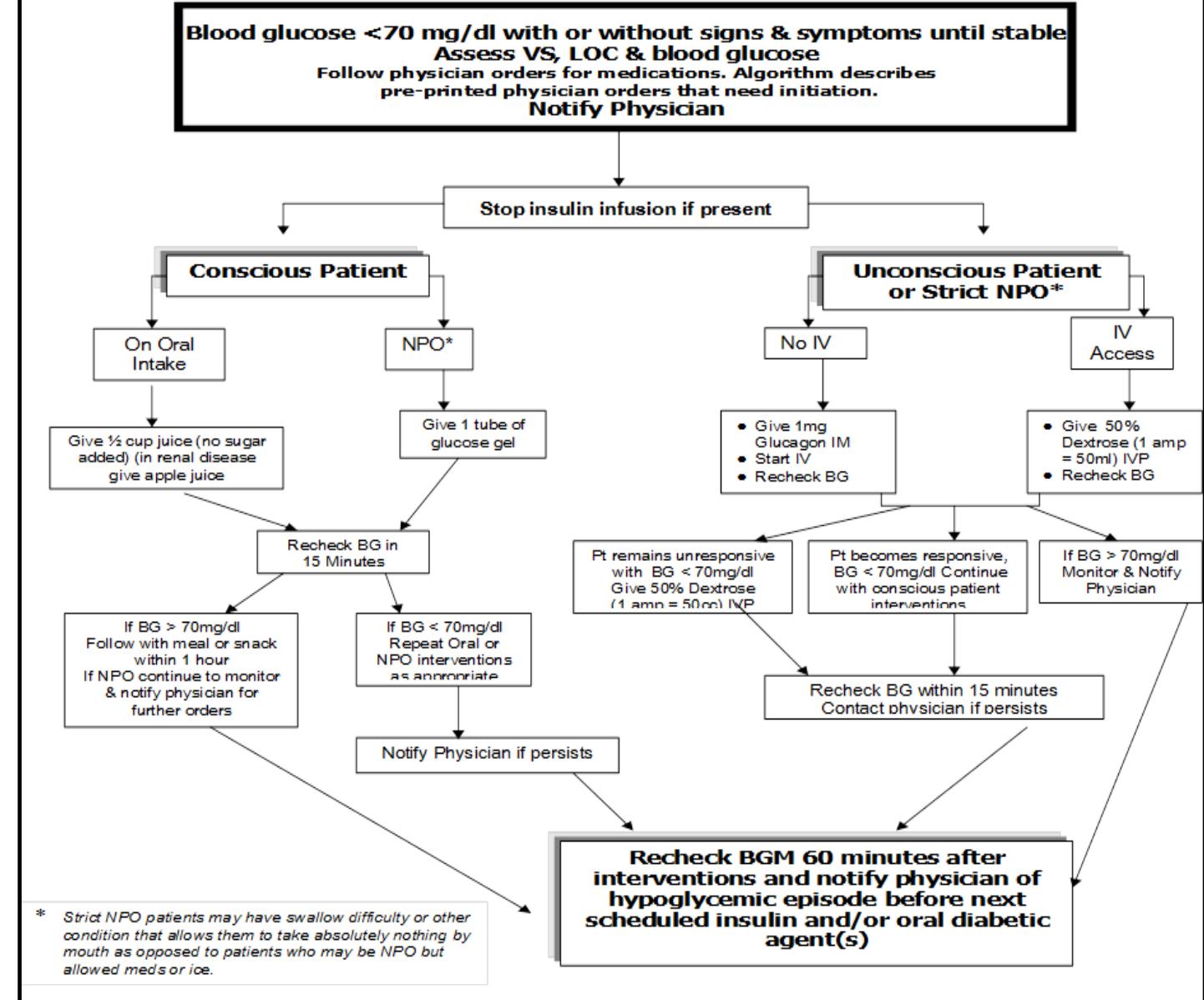
## RNs

- **Critical High:** Confirm glucose with stat lab draw
- **Critical Low:**
  1. Assess patient and provide appropriate interventions
  2. Follow hypoglycemia algorithm for treatment (see next slide)

## NCAs

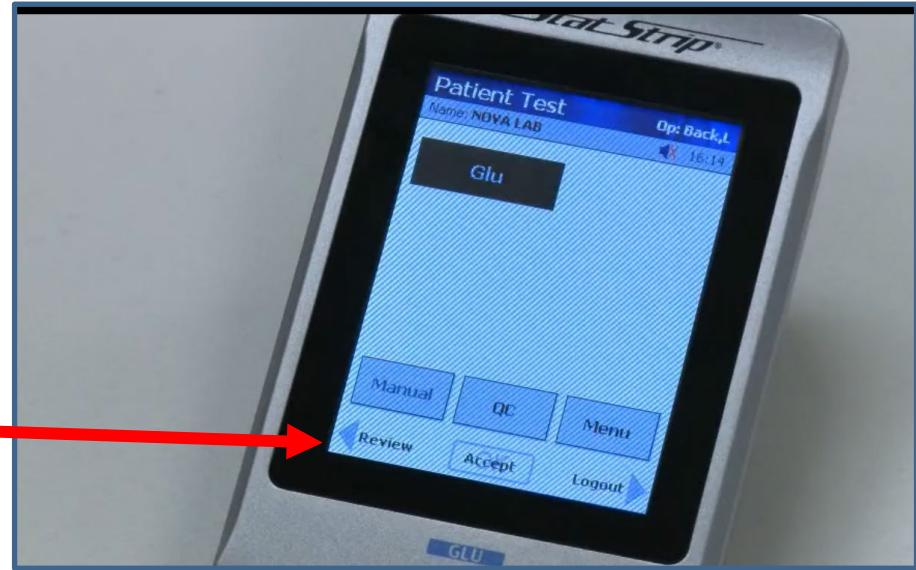
- Report critical results to RN immediately
- Document critical result and notification made to the RN

# HYPOGLYCEMIA TREATMENT ALGORITHM for ADULTS

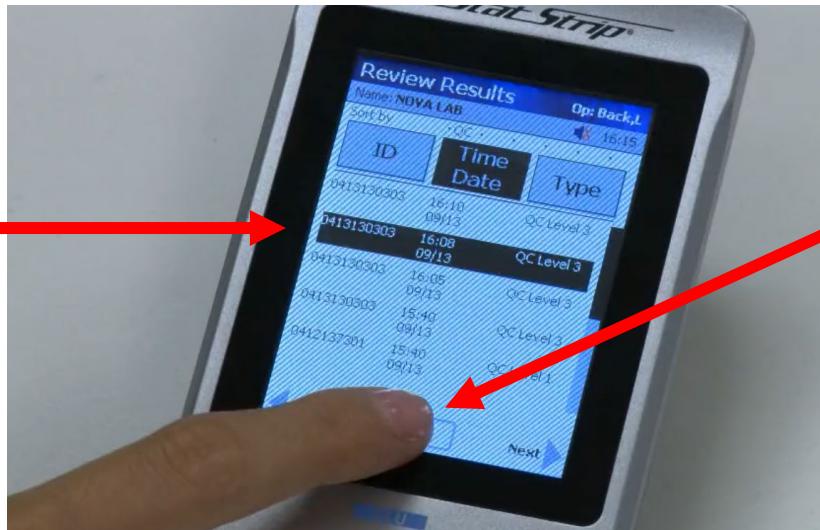


# Review Results

If you need to review a blood glucose result for a patient, press the “review” soft key at the bottom left-hand corner of the screen.



Next, select the correct patient test by matching the ID number or time/date the test was done.



Then, press the “view” soft key located at the bottom and middle portion of the screen to view the result.

# Urgent Situations

“11111111” can be entered for the account number in emergency situations only

- Press override and continue
- Manually enter result in EPIC

**DO NOT** manually enter the patient's ID number into the meter!

- If the wrong medical record number is entered the result will show in the wrong patient's chart!

# Cleaning the Meter

**Clean between each patient use:**

- **Gray top disinfectant wipes - or**
- **10% bleach disinfectant solution**

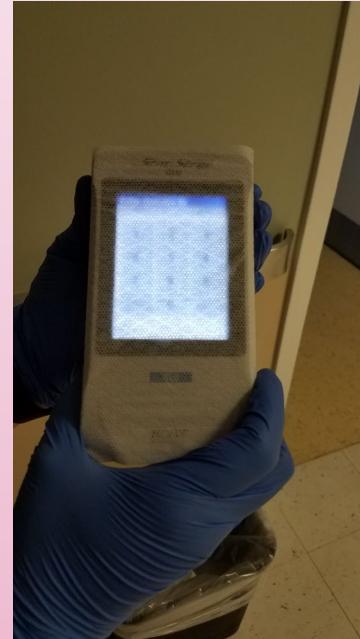
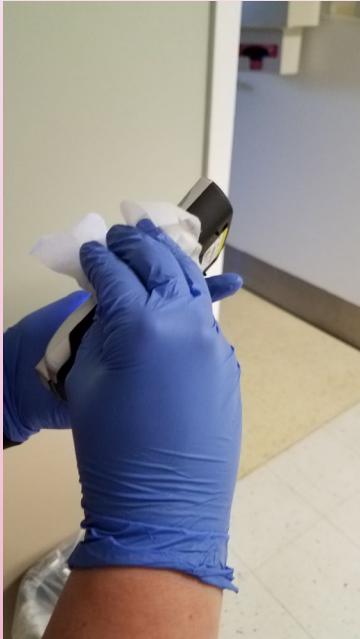
• Follow packaging dry times (3-4 minutes) for proper disinfectant of meter per EPA Guidelines

***Disposable isolation sleeves must be used for patients in isolation or in the RNICU***

## **NEVER:**

- **Immerse meter**
- **Spray with disinfectant**
- **Leave any signs of blood on the meter!**

# Cleaning the Meter



Step 1. Don clean gloves and wipe all surfaces with a gray-top wipe (PDI AF-3)

Step 2. Wrap meter in a clean gray-top wipe. Contact time is 'wet for 3 minutes'

Step 3. Use a dampened cloth to remove residue from touch screen

# Patients in Isolation



**For ANY type of isolation the meter must be placed in a protective sleeve**

**Clean with orange-top (bleach) wipes instead of gray top, increasing the contact time to 4 minutes**

# Specimen Collection Points

**Only fresh capillary or  
syringe draws are  
acceptable**

**Specimens must be obtained  
from a fingerstick, neonatal  
heelstick, or a syringe draw**

**Specimen must NEVER  
be collected directly  
from a needle or removed  
from a vacutainer**

**Testing must be performed  
immediately after the  
specimen is collected. It is  
NEVER acceptable to use a  
previously collected  
specimen**

# Troubleshooting Tips

**If the meter will not scan the patient ID band**

**Ensure the barcode reading laser is working → charge battery if needed**

**Print new patient ID band if needed**

**Invalid Patient ID**

**Verify the CSN is from current admission**

**Dock meter to upload most current patient data**

# References

- **Nova Biomedical. (2019). Instructions for Use Manual StatStrip Glucose Hospital Meter**
- **Covenant HealthCare. (2021). Blood glucose testing using the Nova StatStrip glucose hospital meter. Retrieved from <https://covnet.covenanthealthcare.com/global/policies-and-references/813.aspx>**
- **Covenant HealthCare. (2021). Glycemic Management. Retrieved from <https://covnet.covenanthealthcare.com/global/policies-and-references/2236583e-2dec-43f9-aa56-58ea2fbe683f.aspx>**