

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**

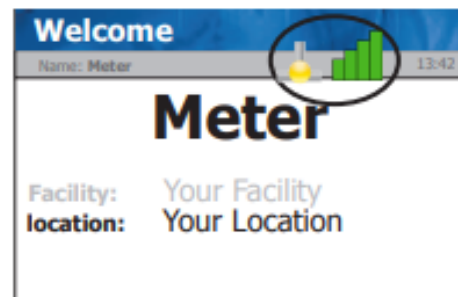
**Battery life =
8 hrs or 40
tests on full
charge**

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



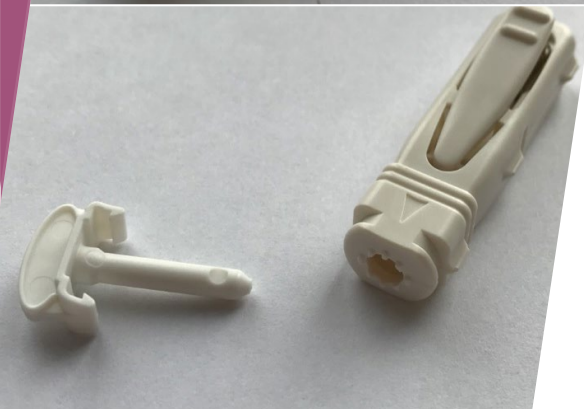
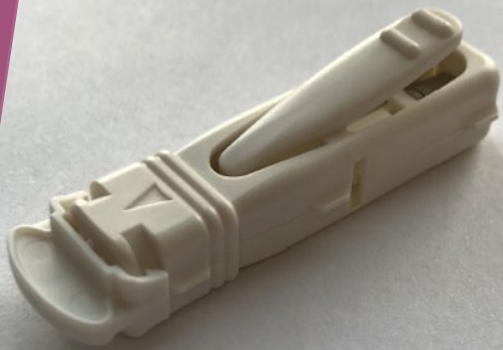
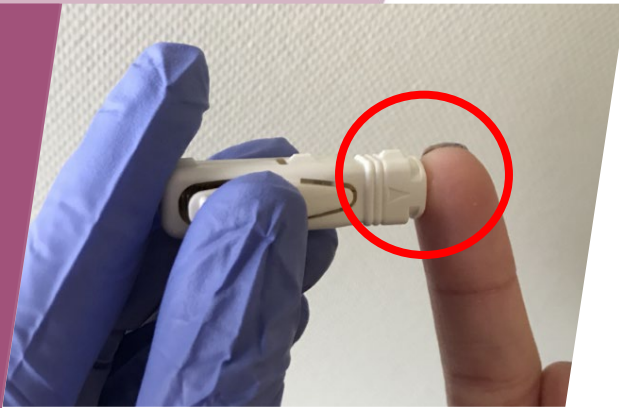
5. Bring the tip of the test strip to the drop of blood and allow the test strip to fill completely



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

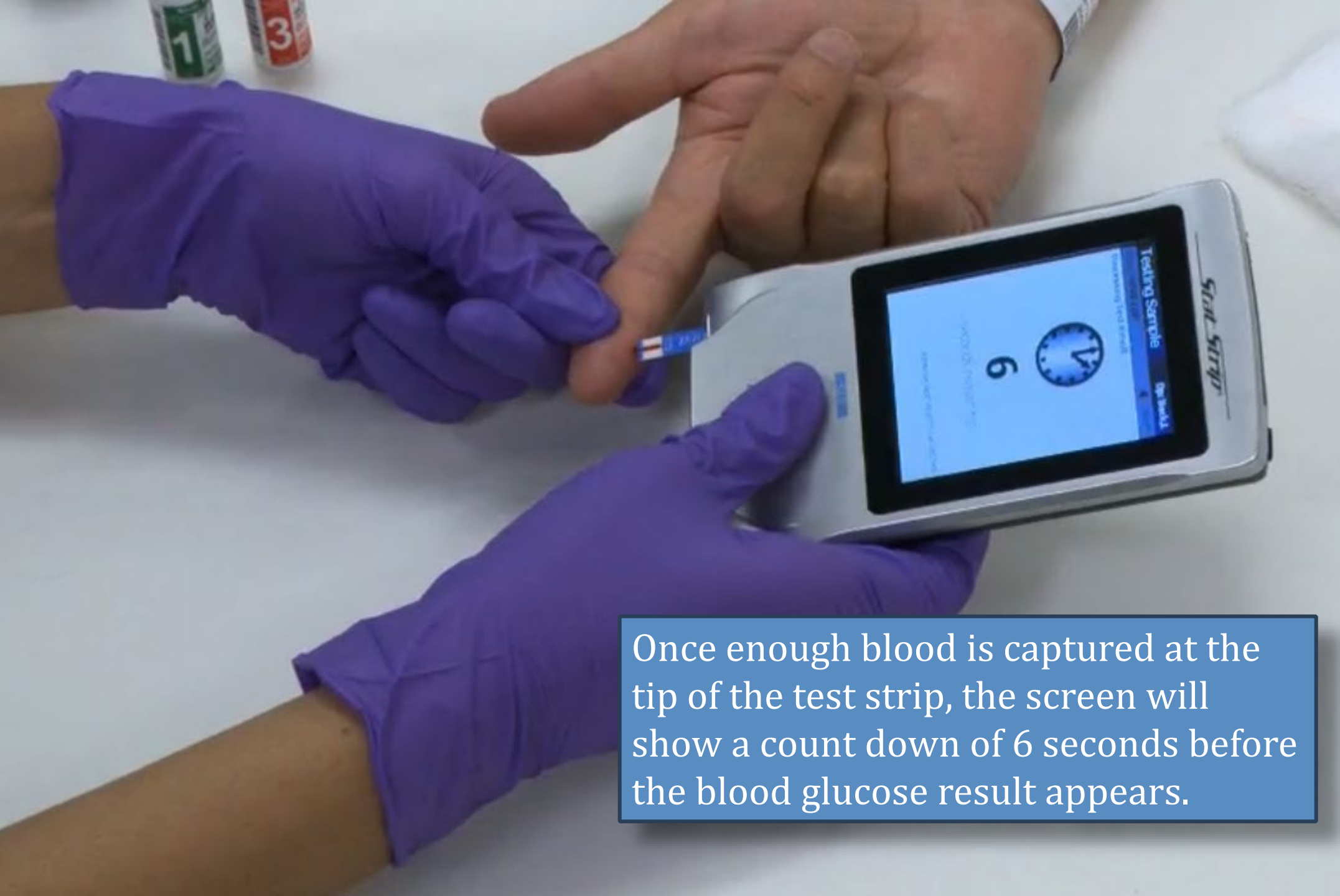
Do not use edematous (swollen), cyanotic (bluish from lack of oxygen), or infected sites

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.

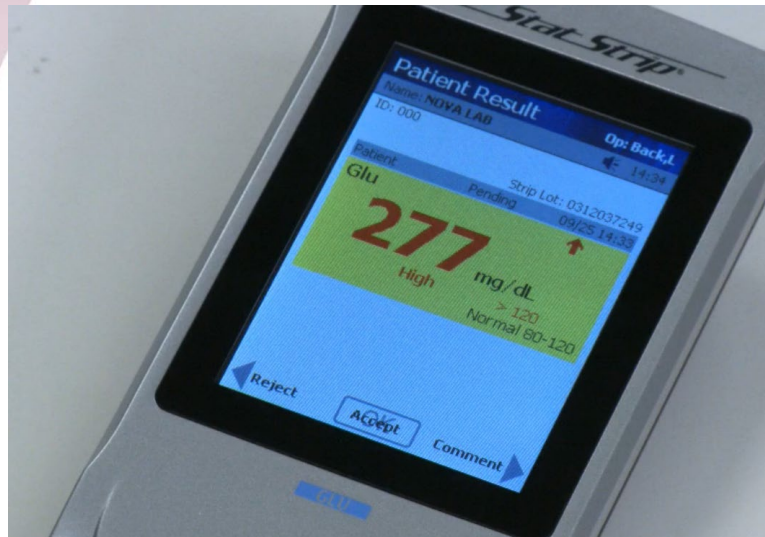
If you receive an error message, take out the test strip and place a new strip in the meter. Then, apply a drop of blood to the tip of the test strip.



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

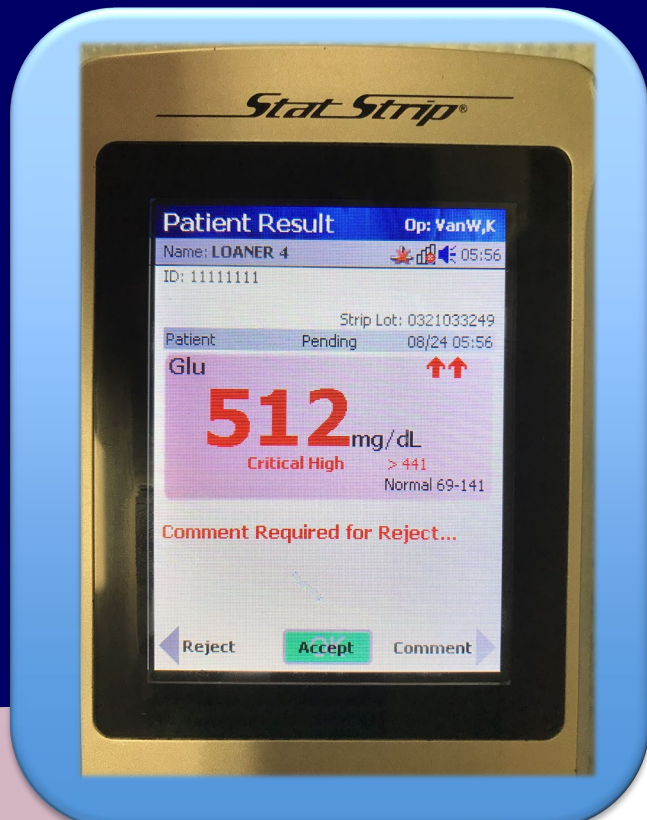
Patient Testing

- 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

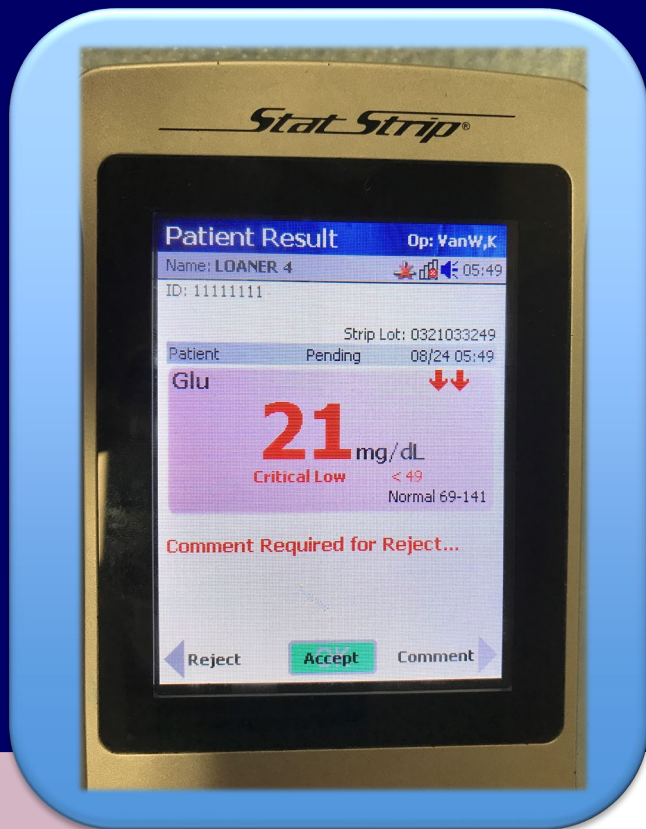
For all adult and pediatric patients:

- 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		✎ Comment Entry ✕		
Weight		Comment:		
Wt- Scale in Pounds		<input type="text" value="McKenna Benson RN notified of results"/>		
Weight Method				
Dosing Weight (only)				
Height				
		<input type="button" value="Accept"/>		<input type="button" value="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

\$ Glucose Results	21
Height / Weight	Comment Entry
Weight	Comment:
Wt- Scale in Pounds	McKenna Benson RN notified of results
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
< 10mg/dL

Critical High
> 600mg/dL

Meter Critical Values

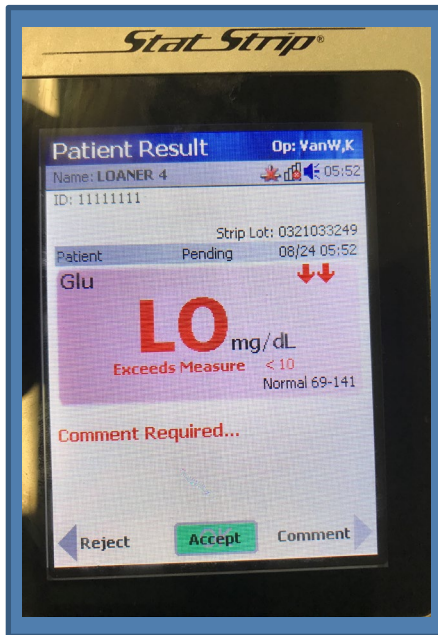
RNs

- **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)

NCA's

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

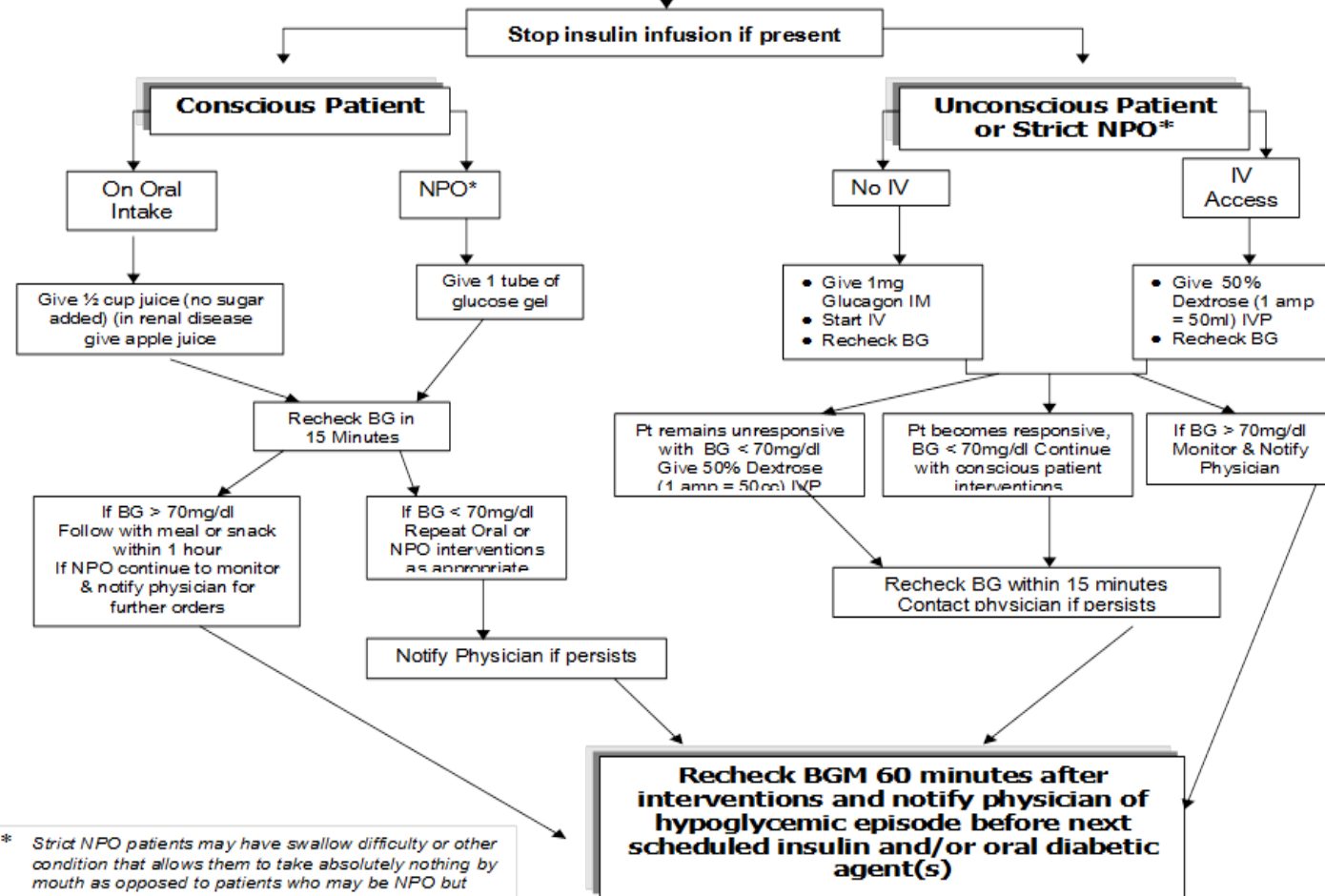
Glucose testing results <10 will display as "Low" and results >600 will display as "Hi" on the meter screen—No value will appear.



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

HYPOGLYCEMIA TREATMENT ALGORITHM for ADULTS

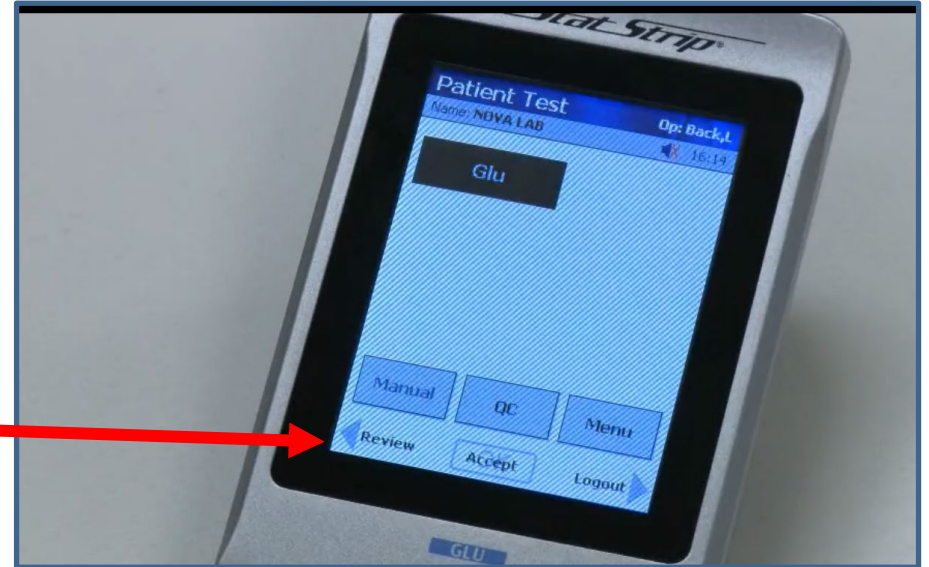
Blood glucose <70 mg/dl with or without signs & symptoms until stable
Assess VS, LOC & blood glucose
 Follow physician orders for medications. Algorithm describes
 pre-printed physician orders that need initiation.
Notify Physician



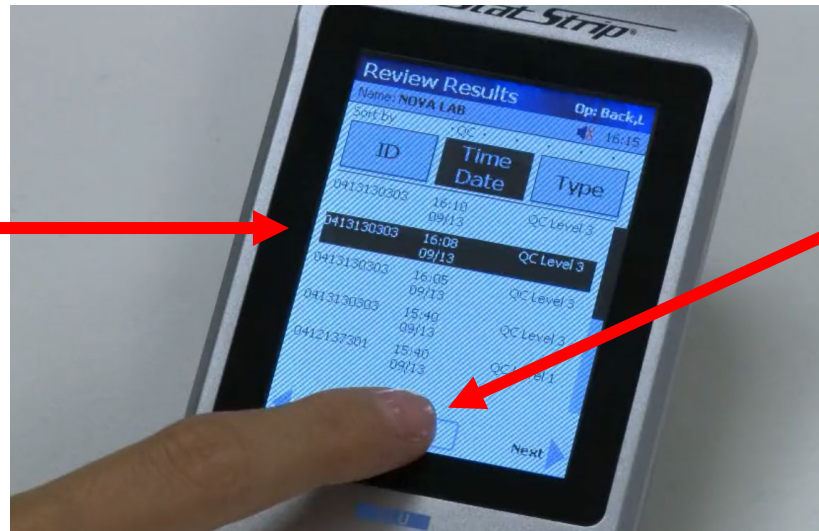
* Strict NPO patients may have swallow difficulty or other condition that allows them to take absolutely nothing by mouth as opposed to patients who may be NPO but allowed meds or ice.

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**

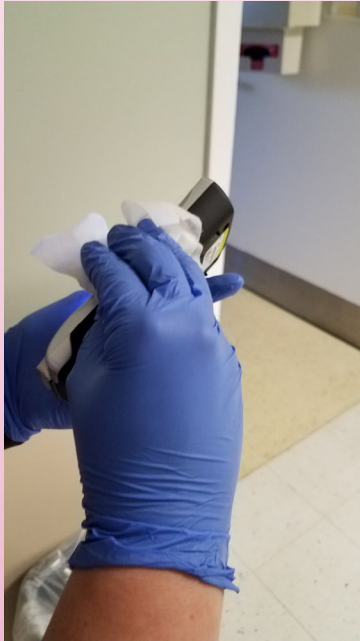
• **Follow packaging dry times (3-4 minutes) for proper disinfectant of meter per EPA Guidelines**

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

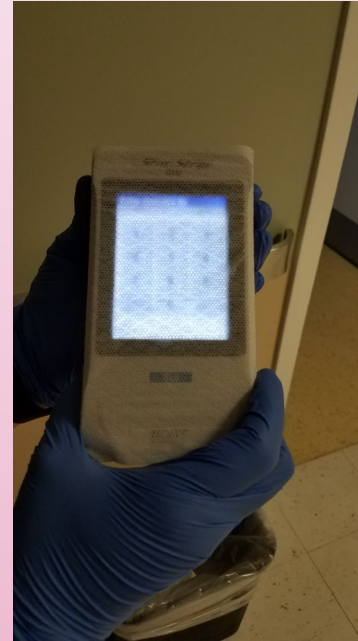
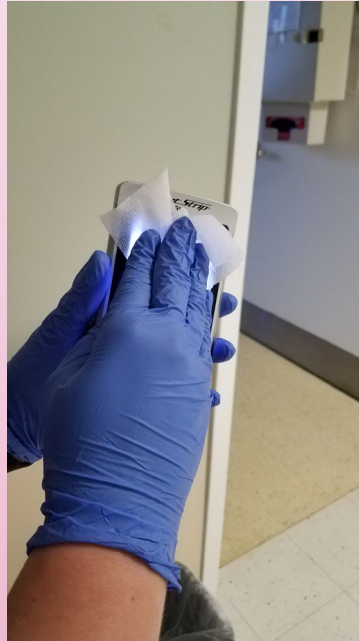
NEVER:

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

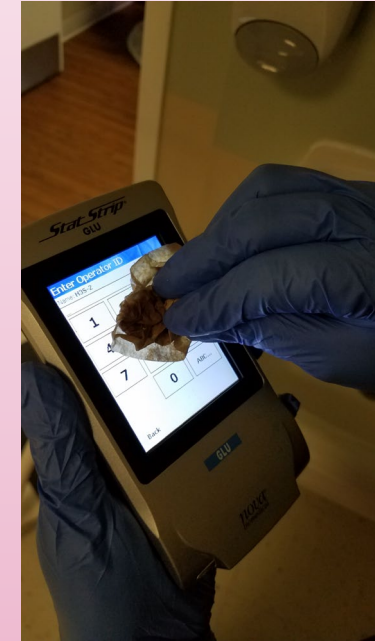
Cleaning the Meter



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

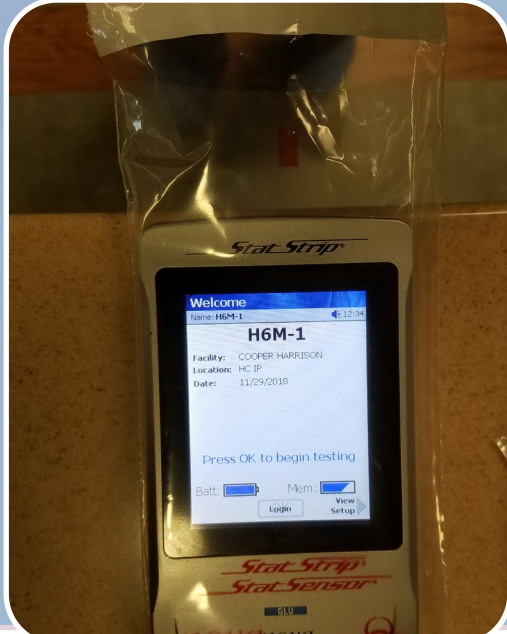


Step 2. Wrap meter in a clean gray-top wipe. Contact time is 'wet for 3 minutes'

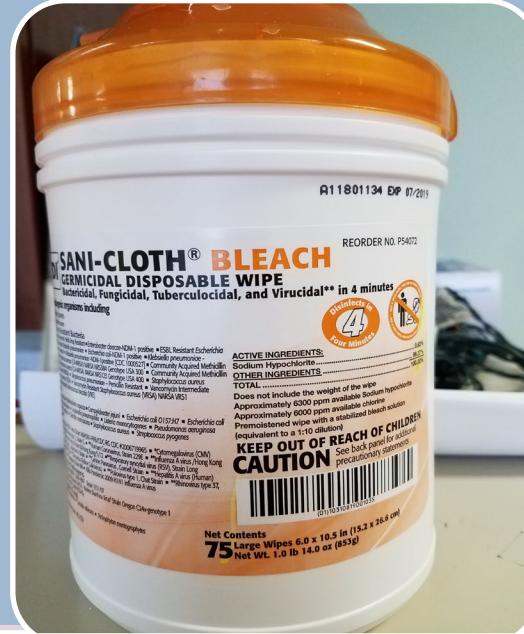


Step 3. Use a dampened cloth to remove residue from touch screen

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>**