The Nova Stat Strip Blood Glucose meter is UHB’s approved Glucometer for patient testing

Operator certification status must be kept current

Use **Universal Precautions** when testing as per hospital policy

Follow **patient identification procedures** when testing as per hospital policy

Run two level of **Quality Control** on every 24 hours

**Clean and Disinfect** meter after every patient testing
• Nova StatStrip Meters are assigned to nursing units by the Point of Care Lab

• Staff should NOT move meters from their assigned units

• If a meter is needed in a particular unit, contact the Point of Care Lab immediately
Nova StatStrip Test: Strip Vials

STATSTRIP VIALS:

- Contain a desiccant to **protect against humidity**
- Must be **CLOSED** with its lid when not in use
- **Store at room temperature** between 15 to 40 degrees Centigrade (59 to 104 degrees Fahrenheit)
- **When opening a new vial** of strips, **write** on vial:
  - Date **Opened AND Date Expired**
  - Expiration date is **180 days from opening** or label expiration date, whichever is first
  - Initials **do not need** to be written on vial
When To Perform Quality Control Testing?

- **Every 24 hours** for each Meter (2 levels of Control – Level 1 and Level 3)
- When a **NEW VIAL** of test strips is **OPENED**
- **After** major maintenance or repair of the meter, i.e. **battery change**.
- When the **meter is dropped**
- When a **new meter** is used
- When **results are questionable** based on clinical signs & symptoms
- Whenever **problems** (storage, operator, instrument) are identified or anytime there is a concern
Control Solutions and Testing

- Store at room temperature, 15-30°C (59-86°F)
- Control vials must be covered with their lids when not in use
- When opening a new Control Solution write on bottle:
  - Date Opened AND Date Expired
  - Expiration Date is 90 days from opening or label expiration date - whichever is first
  - Initials do NOT need to be written on vial
- Run Level 1 and Level 3 controls each 24 hour period on each meter
- To test Gently Mix control solution vial before using
  - Discard 1st drop of Control Solution
  - Use 2nd drop of solution for testing
- After Control Testing select “Meter Cleaned” comment
Control Test Troubleshooting

• If a control level test is out of range:
  ➢ REPEAT CONTROL level test

• If control level test results are AGAIN out of range:
  ➢ OPEN a New Control vial and run test

• If control test results CONTINUE to be out of range:
  ➢ Open a New Strip vial and run test

• If control test results are STILL out of range:
  • Call Point of Care at ext. 1679 or the Bay Ridge Laboratory at 718 567-1158 for assistance during the day
  • Off hours: Go to Lab (2nd floor) and obtain a new meter
Patient Testing

• Starting a Test
  • Enter patient 7 digit identifier (Financial #)
  • Identify specimen source (capillary, venous or arterial)

• Applying Blood Sample to Strip
  Maintain meter in a horizontal position to keep blood out of the meter
  • Discard 1st drop of blood. Use 2nd drop of blood.
  • Allow blood drop to touch the tip of the strip. Fill strip completely
  • Do not move finger from strip until meter countdown begins
  • NO re-application of blood once the testing has started

• Enter Comments After Each Patient Test
  • Can choose up to 3 comments
  • Highlight ALL desired comments AT ONCE and ‘Accept’
  • MUST select ‘Clean /Disinfect Meter’ as a comment
  • Always verify comments display on patient result screen and Accept again.
Patient Testing

- If Results Are Outside Unit Specific Action Range
  - Select Comment “Repeat test”
  - Test **MUST** be repeated to confirm results.
  - **After confirmed repeat** select **needed comment(s)** such as:
    - Clean/Disinfected
    - Initiate Hypoglycemia Protocol
    - Caregiver Notified
    - Send to lab
  - **Follow appropriate protocol**
Unit Specific Action Ranges

- **Pediatrics**: Less than 70 mg/dL – more than 200 mg/dL
- **NICU**: Less than 45 mg/dL – more than 150 mg/dL
- **Newborns on L&D and Mother/Baby Unit**
  - Less than 25 mg/dL: birth to the 1st 4 hours of age
  - Less than 35 mg/dL: 4 to 24 hours of age
- **Ambulatory**: Less than 70 mg/dL – more than 450 mg/dL
- **CTICU**: Less than 60 mg/dL – more than 120 mg/dL
- **Adult Medical/Surgical**: Less than 70 mg/dL – 450 mg/dL

<table>
<thead>
<tr>
<th>Action Range</th>
<th>Comment Code</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Out of Instrument Reportable Range</td>
<td>Repeat Test</td>
<td>Repeat test to confirm result</td>
</tr>
<tr>
<td>&lt; 10 or &gt; 600 mg/dL</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Confirmed Result</td>
<td>Caregiver Notified and Send to Lab</td>
<td>Send specimen to Laboratory</td>
</tr>
</tbody>
</table>
## Use of Common Codes For Action Ranges

<table>
<thead>
<tr>
<th>Unit</th>
<th>Action Range</th>
<th>Comment Code</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adult – Inpatient</td>
<td>&lt; 70 or &gt; 450mg/dL</td>
<td>Repeat Test</td>
<td>Repeat test to confirm result</td>
</tr>
<tr>
<td></td>
<td>Confirmed Result</td>
<td>Caregiver Notified</td>
<td>Initiate Inpatient Hypo/Hyperglycemia Protocol</td>
</tr>
<tr>
<td>NICU</td>
<td>&lt; 45 or &gt; 150mg/dL</td>
<td>Repeat Test</td>
<td>Repeat test to confirm result</td>
</tr>
<tr>
<td></td>
<td>Confirmed Result</td>
<td>Caregiver Notified</td>
<td>Initiate NICU Hypo/Hyperglycemia Protocol</td>
</tr>
<tr>
<td>Newborn</td>
<td>&lt; 25 or &gt; 150mg/dL</td>
<td>Repeat Test</td>
<td>Repeat test to confirm result</td>
</tr>
<tr>
<td></td>
<td>0 - 4 hrs</td>
<td></td>
<td>Initiate Newborn Hypo/Hyperglycemia Protocol</td>
</tr>
<tr>
<td></td>
<td>&lt; 35 or &gt; 150mg/dL</td>
<td></td>
<td>Initiate Newborn Hypo/Hyperglycemia Protocol</td>
</tr>
<tr>
<td></td>
<td>4-24 hrs</td>
<td></td>
<td>Initiate Newborn Hypo/Hyperglycemia Protocol</td>
</tr>
<tr>
<td>Pediatric</td>
<td>&lt; 70 or &gt; 200mg/dL</td>
<td>Repeat Test</td>
<td>Repeat test to confirm result</td>
</tr>
<tr>
<td></td>
<td>Confirmed Result</td>
<td>Caregiver Notified</td>
<td>Initiate Pediatric Hypo/Hyperglycemia Protocol</td>
</tr>
<tr>
<td>CTICU</td>
<td>&lt; 60 or &gt; 120mg/dL</td>
<td>Repeat Test</td>
<td>Repeat test to confirm result</td>
</tr>
<tr>
<td></td>
<td>Confirmed Result</td>
<td>Caregiver Notified</td>
<td>Initiate CTICU Intensive Insulin Infusion Protocol</td>
</tr>
</tbody>
</table>
Clean & Disinfect Meter

Clean & Disinfect Meter With Hospital Approved Disinfectant  *After Each Patient Test A 2-Step Process*

<table>
<thead>
<tr>
<th>Clean Meter</th>
<th>Disinfect Meter</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Wear protective gloves</td>
<td>• Use fresh Clorox bleach germicidal wipe, thoroughly wipe surface of the meter (top, bottom, left &amp; right sides)</td>
</tr>
<tr>
<td>• Make sure test strip is removed from meter</td>
<td>• Avoid the bar code scanner &amp; electrical connector when wiping</td>
</tr>
<tr>
<td>• Lay meter on flat surface</td>
<td>• Ensure meter surfaces stay wet for a minimum of 3 minutes and is allowed surfaces to air dry for an additional 1 minute</td>
</tr>
<tr>
<td>• Obtain a fresh germicidal wipe or Clorox Bleach (hospital approved)</td>
<td>• Dispose gloves into appropriate container</td>
</tr>
<tr>
<td>• Wipe external surface of meter thoroughly with the fresh wipe</td>
<td></td>
</tr>
<tr>
<td>• Discard used wipe &amp; gloves into appropriate container</td>
<td></td>
</tr>
</tbody>
</table>
Isolation Precautions

- Use Universal Precautions

- Clean and Disinfect Statstrip Glucometer \textbf{AFTER EACH PATIENT} use

- Use a separate Statstrip meter based on clinical situations (e.g. Hemodialysis)
POCT Glucose Results Documentation

Results & interventions are documented in HealthBridge Flowsheet /Point of Care Testing
Critically Ill Patients
For the Purposes of Glucose Point of Care Testing

*CAPILLARY sample testing (finger stick blood) may be used*

For the Purposes of Glucose Point of Care Testing:

“Critically Ill” patients are those with:

• **Unstable hemodynamics** — low perfusion index, use of vasopressor, presence of edema and low mean arterial pressure

• **Decompensated heart failure** New York Heart Association Class IV

• **Severe Dehydration** as a result of diabetic ketoacidosis or hyperglycemic hyperosmolar non-ketotic syndrome

• **Arterial occlusive disease**

However, for **FS >600 mg/dL** a serum sample must be drawn
Check ‘Critically Ill’ Patients: Option One

Using the Nova Stat Strip Meter

• Collect Capillary, Arterial or Venous blood sample
• Perform glucose on the Nova Stat Strip

Procedure:

➢ Collect blood in a lithium heparin collection device (ABG syringe)
➢ Draw appropriate discard sample to clear the arterial or venous line before drawing a blood sample for testing.
➢ Sample must be tested within 30 minutes from collection.
➢ Identify specimen source as Capillary, Arterial or Venous
➢ Place blood sample on Nova Stat Strip and follow testing procedure
Send a whole blood specimen to the Lab

Procedure:

• Collect blood in a **grey top tube** or **add on a glucose** test to an arterial or venous **blood gas** sent to lab.

• Draw **appropriate discard sample** to **clear the arterial or venous line** before drawing a blood sample.
Fingerstick Glucose: When to Check?

- Morning fingerstick glucose is checked at or after 7:00 a.m., unless clinically indicated or per unit policy or prescriber’s order (Rehabilitation, OB, Critical Care, etc.).

- **Finger stick glucose must be checked:**
  - Within 1 hour prior to administering prandial or correction insulin.
  - If it is more than 1 hour since the time of the test and insulin administration, test again.
Care of Visitors and Employees

• Use of the Glucose Meter is **Not** for Screening

• **Do NOT** use the Glucose Meter to check a visitor’s or employee’s blood glucose

  – Employees or visitors who are **ill MUST be Referred** to the **ED immediately**
All Operators must follow the re-certification schedule and recertification test performance requirements:

1. Initial Certification
2. Renew in 6 months, and then again in 6 months, then....
3. Annually

Re-certification Steps - Go to: http://www.downstate.edu/ogm/

Step 1: Review the Re-certification presentation
Step 2: Complete the Post Test
Step 3: Upon successfully completion of the Post test, print your Certificate of Completion for your records.
Step 4: Complete two levels of controls and one patient test on your unit immediately after completing the exam
<table>
<thead>
<tr>
<th>Possible Problem</th>
<th>Recommended Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scanning of barcode or manual entry of strip lot number, QC lot number or Operator ID number in error</td>
<td>Check and re-scan or manually re-enter Patient Financial Number</td>
</tr>
<tr>
<td>Scanning or manual entry of Patient Medical Record Number instead of Patient Financial Number</td>
<td>Check and re-scan or manually re-enter Patient Financial Number</td>
</tr>
<tr>
<td>Glucometer did not obtain patient registration information from Hospital Registration System because meter was not docked (wired) or battery low preventing communication (wireless).</td>
<td>Dock meter to allow glucometer to obtain updated patient registration and financial identifier information.</td>
</tr>
<tr>
<td>Error in manual entry of Patient Financial Number</td>
<td>Check and re-scan or manually re-enter Patient Financial Number</td>
</tr>
<tr>
<td>Use of an unreadable or damaged Patient Financial Number barcode</td>
<td>Check, reprint Patient ID barcode and re-scan or manually re-enter Patient Financial Number</td>
</tr>
</tbody>
</table>
| Glucometer testing must be performed prior to patient registration because of an Emergency situation | Applies ONLY to ED, NICU, L&D and CATH Lab areas. Non-Registered Patient Procedure to be followed.  
ALL other units may NOT perform testing with INVALID, NEW or NOT IN SYSTEM patient financial numbers.  
Operator MUST investigate and correct before testing. |
Point of Care Glucose Training

Thank you for viewing the POC Glucose Training presentation

Click here to take the Post-Test