



- Administrative
- Departmental

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**POLICY TITLE:**  
 Bedside Glucose Meter Procedure-NOVA StatStrip®

**SUMMARY & PURPOSE:**

The purpose of this procedure is to outline the technique for operating the NOVA bedside glucose meter. The blood glucose management system can be used as a definitive method for the measurement and monitoring of glucose in whole blood on all units by certified staff for the following patients pending a physician’s order.\* It should not be used for the diagnosis of diabetes.

- a. Patients with diabetes
- b. Patients receiving two or more blood glucose levels per day on a routine basis
- c. Patients receiving Total Parenteral Nutrition (TPN)
- d. Others as needed

\*Collaborate with physician as to method of blood sugar monitoring (e.g., Lab vs. bedside testing). Quantitative glucose in whole blood is measured amperometrically using an enzyme based test strip. When blood is applied to the test strip, glucose in the blood sample mixes with reagent on the test strip that produces an electric current. The amount of current that is produced depends on how much glucose is in the blood.

**POLICY:**

This test will be performed by certified staff at approved sites and used as a definitive method for the measurement and monitoring of glucose as ordered by a physician. The Laboratory Point of Care Testing Department is responsible for implementing this procedure. This procedure should be followed only by staff that is properly trained and deemed competent to perform this test. The steps in this procedure are designed to ensure standardization of practice for all patients including those on isolation.

**SCOPE/APPLICABILITY:**

This policy applies to Nursing personnel or Clinical Partners who have been trained and are deemed competent by the laboratory director or designee to perform bedside blood glucose monitoring. The Point of Care Coordinator, along with the Clinical Nurse Coordinators and Certified Diabetes Nurse Educator have been designated by Thomas M. Mark, M.D., medical director as responsible for supervising waived testing at Doctors Hospital.

**PROCEDURES TO ENSURE COMPLIANCE:**

1. Upon the order of a physician or when medically indicated, nursing personnel shall perform blood glucose monitoring using the Nova StatStrip® Meter.
2. Patient with orders to have “blood sugar checks” via a fingerstick, shall have blood glucose levels checked before each meal and at bedtime, unless ordered differently by the physician or designee.
3. Personnel shall follow standard precautions when performing the test.

**4. TRAINING AND COMPETENCY:**

- a. Only staff trained and certified shall be approved by the laboratory department to use the Nova StatStrip® Meter.
- b. Nursing personnel shall be assigned a unique number to use for bedside glucose monitoring. This number shall be used each time the individual uses the Nova StatStrip® Meter.
- c. New employees using the glucose meter shall receive training during their orientation period.
- d. Education and training on the meter shall include maintenance of blood glucose meter, quality control procedure, infection control, fingerstick blood testing procedure, and review of policy and procedure.
- e. Competency with the meter shall be checked initially and six months after initial training and then annually and shall include:
  - i. Evaluation of technique by a clinical nurse educator or the person designated by the manager/clinical nurse educator and approved by the laboratory manager or designee and performance of a QC (Quality Control) test at least once a year or,
  - ii. Completion of Baptist Health University Online Course.
  - iii. Completion of a Glucose Point of Care Bedside Glucose Testing Competency Validation Checklist form. The original form shall be kept in the employee file and a copy sent to the laboratory.

5. EQUIPMENT AND MATERIAL:

- a. Equipment:
  - i. Nova StatStrip® Glucose Meter
  - ii. Docking/Charging Station
  - iii. Wall Mount
  - iv. Battery: Rechargeable 3.7V Li Polymer PN 46827
  - v. Meter Transport Case
- b. Materials:
  - i. Nova StatStrip® Glucose Test Strips
  - ii. Nova StatStrip® Glucose Control Solutions: Levels 1 and 3
  - iii. Lancet Devices
  - iv. Gloves
  - v. Alcohol wipes (70% Isopropyl)
  - vi. Gauze
  - vii. Hospital approved disinfectant wipes
  - viii. Paper Towel Barrier
- c. Storage Requirements:
  - i. Store the Nova StatStrip® Meter at 15 to 40° C (59 to 104° F) with humidity below 90%.
  - ii. Store the Nova StatStrip® Glucose Test Strip vials tightly closed when not in use at 15 to 30° C (59 to 86° F). Do not refrigerate or freeze. Unopened vials are good until the expiration date on the bottle. Once opened, strips are stable when stored as indicated up to 180 days or printed expiration date, whichever comes first. Please label open and expiration date before putting in meter case.
  - iii. Store the Nova StatStrip® Glucose Control Solution vials tightly closed when not in use at 15 to 30° F). Do not refrigerate or freeze. Unopened vials are good until the expiration date on the bottle. Once opened, solutions are stable up to 3 months or until printed expiration date, whichever comes first. Please label open and expiration date before putting in meter case.

6. CALIBRATION:

The meter does not require calibration. It is calibrated by Nova to provide plasma equivalent results to laboratory methods.

7. SPECIMEN:

- a. Patient Preparation:
  - i. At least two patient identifiers (patient name and date of birth) are used to identify patient before performing test.
  - ii. Puncture site should be cleaned with alcohol wipes and thoroughly dried before obtaining sample.
  - iii. Follow the Site Preparation and Puncture steps 1-5 for finger stick blood collection

1. Select site: a. Fingersticks: avoid fingers that are cold or swollen. Use tip of the fourth or ring finger of non- dominant hand.

b. Heelsticks: avoid bruises, abrasions or sloughing skin.



See diagram for optimal sites (grayed areas)

2. Identify patient. For specimen collection, you must use two identifiers, patient name and date of birth.

- a. ASK: ask your patient to tell you their name and date of birth.
- b. MATCH: match patient's verbal information with the patient name and date of birth on identification band
- c. VERIFY: verify these two identifiers (patient name and date of birth) with your lab barcode label or hospital label if no barcode label is available and in addition verify the medical record number on the identification band to the label you are using to label the specimen.

3. Perform hand hygiene, don gloves

4. Secure site: hold the patient's hand or heel firmly

5. Perform stick a. Warm the finger or heel with an appropriate warming device to increase blood flow.

b. Cleanse finger or heel with alcohol swab. Dry with gauze.

c. Fingerstick or Heelstick: make a swift, deep puncture. Wipe away first drop of blood with a clean gauze.

d. Gently massage the finger/heel to obtain the proper amount of blood for the tests requested.

e. Mix all tubes by gently tapping tube on beside in between collection of drops.

It is important that the first drop of blood is wiped away with gauze to prevent intracellular and interstitial contamination of the sample. Use second drop of blood for testing.

iv. Moderate pressure may be applied, but not squeeze the finger excessively as this will dilute the blood specimen with serous fluid.

b. Type:

i. Fresh whole blood, arterial or venous (from syringe) may be used.

ii. Do not use blood that has been collected in a tube.

iii. It is not recommended to use fingerstick puncture on patients with decrease peripheral flow, as it may not reflect the true physiological state. Send a specimen to the laboratory, or collect an arterial or venous specimen via syringe.

c. Handling Conditions:

i. Observe Standard precautions when collecting a patient specimen.

ii. Do not place meter on patient's bed.

- iii. Use a paper towel barrier on the surface that the meter and supplies will be on while testing.
- iv. For all patients, leave tote outside the patient's room. Take only the meter, strip vial, lancet, gauze, and alcohol pad.

#### 8. MAINTENANCE:

Maintenance consists of charging the meter battery, replacing the battery, room temperature monitoring and cleaning/disinfecting the meter surface. An auto sleep feature (SLEEP MODE) conserves battery power when the meter is not in use. A charged battery lasts for 8 hours or 40 patient tests, whichever comes first. Some downloaders are chargers only (red round sticker), and some are combination chargers/downloaders. When downloading data, make sure the meter is inserted in the correct downloader.

- a. Charging the meter battery:
  - i. The battery is charged every time the meter is placed in the docking/charging station. It is advisable to keep one spare battery in the docking station; this battery will be fully charged and available for replacement.
  - ii. Place the meter on the charger whenever instrument is not in use.
  - iii. When the battery LOW symbol displays on the screen, place the meter into the charging station. If needed, the current battery can be replaced with the spare battery immediately to allow for continuous operation.
- b. Changing the meter battery:
  - i. Press the Power button to enter the Sleep Mode. This will allow the operator approximately 20 seconds to change the battery. Taking longer than 20 seconds will cause the loss of current date/time settings and they will have to be reset.
  - ii. Push down on the 2 cover latches to release the cover. Take the battery cover off the back of the meter.
  - iii. Push up on the battery latch. Remove the drained battery.
  - iv. Replace with a fully charged battery.
  - v. Replace the battery cover.
  - vi. Place the drained battery into the Charging Station.

*NOTE: If it takes longer than 20 seconds to change the battery, power up the Meter, after changing the battery, log in again, and set the date and time as follows:*

- i. From the Patient Test screen, press the Menu then the Admin soft button.
- ii. The Admin screen displays. Press the Set Time soft key.
- iii. The Set Time screen displays. To change the hour, press the drop down arrow. Then press the up/down scroll arrow to the current hour. Do the same for the minutes.
- iv. Do the same for the Month, Day, and Year.
- v. If Date and Time are now correct, press the Accept soft button.

*NOTE: The battery is keyed to allow only insertion from bottom first then push in top.*

**WARNING:** Replace the battery with Nova Biomedical part number 46827 only. Using another kind of battery may present a risk of fire or explosion. If discarding, dispose of the battery promptly according to your facility's protocol. Keep the battery away from children.

- c. Cleaning the Meter:
  - i. The meter should never be immersed in any cleaning agent.
  - ii. Use a commercial germicidal wipe approved for use by BHSF. Follow the cleaning agent directions.
  - iii. Maintain wetness for **3 minute (contact time)**, except for patients on isolation for C difficile, which requires **5 minute contact time**, even if this means using multiple wipes. Do not reuse a wipe.
  - iv. Avoid harsh solvents such as benzene and strong acids, or unapproved cleaning agents.
  - v. Clean meter after each patient use.
  - vi. Use personal protective equipment when cleaning meter.
  - vii. Perform hand hygiene after cleaning meter before leaving the room.

*CAUTION: DO NOT immerse the meter or hold the meter under running water. DO NOT spray the meter with a disinfectant solution.*

- d. Room Temperature Monitoring:
  - i. Strips and controls must be kept below 30°C. Monitor Room temperature daily and record on Room Temperature log.
  - ii. Contact Engineering if temperature is out of range and verify reagent integrity by running two levels of controls.
  - iii. If controls fail, contact POCT Coordinator.
  - iv. Document corrective actions on Room Temperature Log.

9. QUALITY CONTROL NOTES:

The StatStrip® Glucose Control Solutions have known glucose values that are used to confirm that the meter and test strips are working correctly. The control solution test results should fall within the range of results pre-set by the lab into the meter. The glucose concentration in the control solutions is adjusted to give equivalent results to whole blood samples. The meter is set to display results as PASS or FAIL, and will lock out the user from testing if QC is due or fails. The Quality Control (QC) should be run at the following frequency:

- a Level 1 and 3 every 24 hours
- b Before using the StatStrip meter for the first time (performed by POC staff)
- c If you drop the meter or if there are other indications that the system is not working properly (contact POC department to troubleshoot meter)
- d Each new meter operator before using the meter the first time (done in training class)
- e Whenever optimum conditions for storage of meter and supplies is exceeded.
- f When receiving a new lot or shipment or reagents (done by POC staff).

10. QUALITY CONTROL PROCEDURE:

- a. Press the screen or any hard key to wake up the meter.

- b. From the Home screen, press the Login soft key at the bottom middle of the screen.
- c. At the Enter Operator ID Screen, scan your operator barcode.
  - i. To use the barcode scanner, press the Scan soft key on the Enter Operator ID screen or one of the side buttons to scan your badge with the bottom of the meter.
  - ii. If barcode does not work, press the ABC soft key to display the alphanumeric keypad, and enter the operator ID manually.
  - iii. When an invalid ID is entered, the screen displays the invalid ID number with a message "is not a valid ID, Try again."
  - iv. Warning: Do not stare into the Laser Light or point it towards anyone's eyes while scanning a barcode.
- d. Press the Accept soft key at the bottom of the screen. The meter now displays the Patient Test Screen.
- e. From the Patient Test Screen, press the QC soft key.
- f. The Enter Strip Lot screen displays. Enter the Strip Lot number by scanning the barcode on the side of the container.
  - i. To scan the barcode, press the Scan soft key.
  - ii. If the Strip Lot Number is invalid, the screen displays the invalid number with "is not a valid Strip Lot #. Try again"
- g. Press the Accept soft key if the lot number is correct. The Enter QC Lot screen displays.
- h. Enter the QC lot number by scanning the barcode on the side of the solution container.
- i. Press the Accept soft key if the lot number is correct. The Insert Strip screen displays.
- j. Insert a Test Strip as shown on the screen. The NOVA name must be facing up.
- k. With the test strip correctly inserted, the Apply Sample screen displays.
- l. Gently mix the StatStrip Glucose Control Solution before each use.
- m. In areas of infrequent testing, discard the first drop of control solution from the bottle onto a piece of gauze to avoid contamination. This is not necessary for areas that perform QC daily. The StatStrip controls are aqueous solutions and are not a biohazard.
- n. Place the meter in a horizontal or slightly downward position to avoid QC solutions from getting into the meter through the strip port.
- o. Place a drop of control solution from the bottle at the end of the test strip until the solution is drawn into the well of the test strip all at once.
- p. Note the screen display as the strip is filled. When enough sample has been drawn into the strip an audible beep is sounded by the meter. At that point, remove the control tip from the strip.
  - i. If strip is not filled all the way at one time, do not add additional sample to the strip.
  - ii. The Testing Sample screen displays with a countdown from 6 seconds.
- q. Recap the control solution.
  - i. The result is displayed as either PASS or FAIL.
- r. To add a Comment to the result, press the Comment soft key.
  - i. The Add Comment screen appears with predetermined comments.
  - ii. There are Page Up and Page Down soft keys to scroll through the comments.
- s. Once selected, press the Accept soft key to place the comment onto the QC result.
- t. If no comment is to be added to the QC, press the Accept soft key to accept the result.

- u. Repeat the steps with the second QC solution.
  - i. Both levels (1 and 3) must pass to perform patient tests.
- v. Retest any QC that fails placing close attention to procedural instructions. Select the appropriate procedural error comments for FAIL result.

11. REASONS FOR QC FAILURE AND CORRECTIVE ACTION:

- a. You may not be performing the test correctly. Repeat test paying close attention to procedure.
- b. Control solution may be expired or contaminated. Check expiration date and whether cap was kept closed. If step above does not work, retest with a new QC solution.
- c. The strip may have expired. Check expiration date and use strip from new vial if expired. Discard expired strip vial.
- d. The test strip may have been damaged. Retest with a new test strip.
- e. The NOVA StatStrip meter may not be working properly. Contact the POC Department for troubleshooting.
- f. Document all corrective action with a note on the failed results.

12. PATIENT TESTING PROCEDURE:

- a. Wash hands; don gloves
- b. Explain procedure to patient.
- c. Set up a 'clean space' away from the patient's bedside using a paper towel on a clean dry area.
- d. Place the glucometer and bottle of test strips on a paper towel.
- e. From the Patient Test screen, press the Accept soft key. The Enter Strip Lot screen displays.
- f. Scan the strip lot number by scanning the barcode on the side of the container.
- g. Accept soft key.
- h. At the Enter Patient ID screen, press the Scan button to scan in the patient account number being careful not to let the machine come in contact with the bed, bedrails, or patient.
- i. Verify the patient ID with the two identifiers displayed.
  - i. When an invalid ID is entered, the screen displays the invalid number with a message "is not a valid ID. Try again."
  - ii. For patient's that are not registered, press the Downtime Override soft key to continue testing and follow the Emergency policy for the handling of unregistered patients.
    - a) In the Emergency Department only, when the patient does not have an armband enters the downtime account number assigned by Registration.
    - b) During Code 9 (non-patient injury), call Emergency Department Registration and enter the downtime account number.
  - iii. For patient's that are registered, verify that patient's ID number displayed matches with the patient's armband, and if it is correct, press the Downtime Override soft key to continue. If the number is incorrect, scan or enter number again.



- j. Press the Accept soft key if the ID belongs to the correct patient.
- k. The Insert Strip screen displays.
- l. Insert a test strip as shown on the meter screen.
- m. Select the appropriate site to be punctured. Clean and thoroughly dry the fingertip. Puncture the lateral fleshy portion of the fingertip using a lancing device. Make sure to wipe off the first drop of blood with gauze, and add the second drop to the strip.
- n. The Apply Sample screen should be displaying. When the blood drop appears, touch the end of the test strip to the blood drop until the well of the test strip is full and the meter beeps.
  - i. The instrument should be in a horizontal or slightly downward position when sampling to avoid blood from running into the Strip Port.
  - ii. The test results will appear in 6 seconds.
  - iii. The test strip must fill completely upon touching the blood droplet. If the 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 strip.
  - iv. Do not remove the test strip while the countdown is in progress.
- o. To accept the result, press the Accept soft key. If not accepted the result will be lost and will not transfer to Clinical Applications.
- p. To add a comment, press the Comment soft key and choose from the comments available.
- q. Discard the test strip.
- r. Clean the machine as described in 8, c. Place back on paper towel.
- s. Perform hand hygiene before leaving room.
- t. If meter is not working, contact Lab POCT Coordinator for assistance.

13. RESULT REPORTING:

The Nova StatStrip Meter stores test results along with the time and date, operator ID number and patient ID number. Once the test is completed, the operator will then return the NOVA StatStrip meter to its docking station for data downloading to the computer system.

14. RESULT ALERTS:

- a. Results within the normal range are displayed in Blue.
- b. Results outside the normal range are displayed in Red.
- c. If the result is outside the normal range of the meter, it will display as <10 or >600 mg/dL.
- d. A single up arrow ↑ displays if the result is above normal range but not critical.
- e. A double up arrow ↑↑ displays if the value is higher than the critical upper limit.
- f. A single down arrow ↓ displays if the result is below the normal range but not in the critical range.
- g. A double down arrow ↓↓ displays if the result is below the critical lower limit.

15. REPORTABLE RANGES:

The operating range/analytical measurement range of the StatStrip Glucose Meter is 10 - 600 mg/dL.

- a. If HI is displayed, the blood glucose result is higher than 600 mg/dL repeat the test on the meter to confirm result. If the result is still critical >400 mg/dL, order a STAT venipuncture for confirmatory blood glucose by Lab. Notify the nurse or designated healthcare practitioner directly responsible for the patient’s care and treat patient based on the confirmatory blood glucose by Lab.
- b. If LO is displayed, the blood glucose result is less 10 mg/dL. Repeat the test on the meter to confirm result. Order a STAT venipuncture for confirmatory blood glucose by Lab. Notify the nurse or designated healthcare practitioner directly responsible for the patient’s care and treat the patient. Do not delay treatment waiting for laboratory results.

16. REFERENCE RANGES:

a. The reference ranges for fasting blood glucose include:

Age	Reference Values (mg/dL)
0 H – 24 H	40-60 mg/dL
25 H – 1 M	50-80 mg/dL
2 M – 15 Y	60-99 mg/dL
16 Y – 69 Y	70-99 mg/dL
≥ 70 Y	80-99 mg/dL

b. The reference ranges for random blood glucose include:

Age	Reference Values (mg/dL)
0 H – 24 H	40-126 mg/dL
25 H – 1 M	50-126 mg/dL
2 M – 15 Y	60-126 mg/dL
16 Y – 69 Y	70-126 mg/dL
≥ 70 Y	80-126 mg/dL

c. The critical values for glucose include:

Age	Critical Values (mg/dL)	
0 H – 3M	<40	>200 mg/dL
≥ 4 M	<60	>400 mg/dL

d. Target ranges for the general inpatient and outpatient population are:

Age	Target Ranges (mg/dL)
0 H – 1 M	40 – 126 mg/dl
> 1 M	70 – 150 mg/dl

The physician can specify other target ranges for special populations.

13. PROCEDURE FOR HANDLING CRITICAL RESULTS:

- a. Unexpected glucose results exceeding critical value limits require repeat testing with a new sample. The critical glucose result is reported to the nurse or designated healthcare practitioner directly responsible for the patient's care.
- b. Critical results must be reported to the attending physician or caregiver promptly following hospital policy.
- c. Bedside glucose assays are a definitive test for monitoring glucose levels in patients previously diagnosed with diabetes mellitus and are useful in the process of diagnosing initial hypoglycemic conditions.
- d. Unexpected Glucose values that exceed the upper limits of the meter require verification by the laboratory >600 mg/dL for adults. Do not delay treatment waiting for laboratory results if result is expected.

e.

**If the result is less than 60 mg/dL or greater than 400 mg/dL:**

- i. **Do a second check using the glucometer.**
- ii. **If the result is still less than 60 mg/dL or greater than 400 mg/dL, it must be confirmed by the laboratory via serum glucose STAT. Generate the order in the computer; call the laboratory and inform them of the need for a STAT glucose; document the name the person who took the call in the laboratory.**
- iii. **If test is performed by a licensed practitioner and the blood glucose reading is less than 60 mg/dl or greater than 400 mg/dl, then you must enter comments "Repeat Test", "Lab Verified" and "CallReadBackMD."**
- iv. **If the test is performed by a Clinical Partner and the blood glucose reading is less than 60 mg/dL or greater than 400 mg/dL, then you must enter comments "Repeat Test" and "CallReadBackRN."**

**Note: A test result less than 60mg/dl or greater than 400 mg/dL is a critical value and shall be reported as per the DH Administrative Policy 303.17 Critical Values.**

**In the Critical Care Area:**

If the critical value is an expected result (i.e., high blood glucose in a diabetic ketoacidosis (DKA) patient who is being treated for DKA, but whose blood glucose is being monitored closely), the nurse does not need to report every critical value if deemed necessary.

**f. Hypoglycemia treatment for blood glucose lower than 70 mg/dL. Recheck blood glucose every 15 minutes and repeat treatment until blood glucose is greater than or equal to 90 mg/dL. If a meal is more than 1 hour away give an extra carbohydrate and protein. Always notify physician. Blood glucose may be checked PRN if patient symptomatic.**

- i. If patient is **conscious** and able to swallow, give 15 grams of oral glucose (4 ounces juice or 15 grams glucose gel).

- ii. If patient is **unconscious**, NPO, or unable to swallow and IV access is available, administer D50W 12.5 grams (25 milliliters) IV push for blood glucose 50-70 mg/dL or D50W 25 grams (50 milliliters) IV push for blood glucose less than 50 mg/dL.
- iii. Administer Glucagon 1 milligrams IM if patient has no IV access. Administer once only and if blood glucose is still less than 90 mg/dL, re-assess. If awake and able to swallow, give juice as directed. If not obtain IV access and administer D50W as directed.

18. LIMITATIONS:

- a. The operating temperature range for Meter operation: 59°F to 104°F(15°C to 40°C)
- b. The relative humidity range for Meter operation: up to 90% non-condensing
- c. The maximum altitude for Meter operation: Up to 15,000 feet(4500 meters)

19. GLUCOSE INTERFERENCES:

The StatStrip Glucose Hospital Meter exhibits no interference from the following substances up to the following concentration levels:

Tested Interfering Substances	Tested Concentration Levels	
Acetaminophen	10.0 mg/dL	0.66 mmol/L
Ascorbic Acid	10.0 mg/dL	0.57 mmol/L
Bilirubin	15.0 mg/dL	0.26 mmol/L
Cholesterol	500.0 mg/dL	12.9 mmol/L
Creatinine	6.0 mg/dL	0.53 mmol/L
Dopamine	10.0 mg/dL	0.53 mmol/L
Ephedrine	0.9 mg/dL	0.055 mmol/L
D(+) Galactose	350.0 mg/dL	19.4 mmol/L
Hematocrit (RBC)	20% -65%	
Ibuprofen	48.0 mg/dL	2.33 mmol/L
L-Dopa	100.0 mg/dL	5.07 mmol/L
D(+) Maltose Monohydrate	240.0 mg/dL	6.66 mmol/L
D(+) Maltotetraose	240.0 mg/dL	3.6 mmol/L
D(+) Maltotriose	240.0 mg/dL	4.76 mmol/L
Methyl-Dopa	1.0 mg/dL	0.042 mmol/L
Oxygen	All Concentrations	
Salicylate	30.0 mg/dL	1.87 mmol/L
Tetracycline	30.0 mg/dL	0.62 mmol/L
Tolazamide	15.0 mg/dL	0.48 mmol/L
Tolbutamide	45.0 mg/dL	1.67 mmol/L
Triglycerides	750.0 mg/dL	8.78 mmol/L
Uric Acid	20 mg/dL 1.05 mmol/L	

20. PROCEDURE-LINEARITY AND UNKNOWN TEST:

Nova StatStrip Meter

1 Turn on the meter.

2 From the Patient Test screen, press the Menu soft key.

3 From the Menu screen, press the Linearity soft key.

4 The Enter Strip Lot screen displays. Enter the Strip Lot Number or scan the barcode. To scan the barcode, press the Scan soft key.

**Note:** If the Strip Lot Number is invalid, the screen displays the invalid number with “**is not a valid Strip Lot Try again.**”

5 Press the Accept soft key if the lot number is correct.

6 The Enter Linearity Lot screen displays. Enter the Linearity lot number, select from the Linearity Lot List screen (press the List soft button), or scan the barcode. To scan the barcode, press the Scan soft key.

**Note:** If the Linearity Lot number is invalid, the screen displays the invalid number with “ is not a valid Linearity Lot # Try again.

7 Press the accept soft key if the lot number is correct.

8 The Insert Strip screen displays. Insert a Test Strip as shown on the screen.

9 With the test strip correctly inserted, The Apply Sample screen displays.

10 Gently mix the StatStrip Linearity Solution before each use.

11 Discard the first drop of linearity solution from the bottle to avoid contamination.

12 Place a drop of linearity solution from the bottle at the end of the test strip until the solution is drawn into the well of the test strip. When enough sample has been drawn into the strip, an audible beep is sounded by the meter.

13 Recap the linearity solution. The Testing Sample screen displays. The screen shows a clock with seconds remaining below the clock.

14 When the meter completes the test, the Linearity Result screen displays with the results in mg/dL or mmol/L.

**Note:** Result is displayed with either PASS or FAIL, only PASS or FAIL is displayed without the result.

15 To add a comment, press the Comment soft key.

16 To accept the result, press the Accept soft key.

## 21. PROFICIENCY TESTING:

Doctor Hospital subscribes to and participates in the CAP Waived Testing survey for Whole Blood Glucose ( WB2 ). Refer to DH 350-3820-4.0

## 22. REPORTING FORMAT:

Results are reported in milligrams per deciliter (mg/dL). Results are not to be reported unless quality control is acceptable.

All patient results are reported with accompanying references intervals.

## 23. DATA TRANSFER:

1 Each meter must be downloaded on every shift if it used. In order for results to transfer to the Hospital Information System, the meter must be downloaded.

2 The Nova Stat Strip Meter stores test results along with the time and date, operator ID number and patient ID number. Once the test is completed, the operator will then return the Nova Stat Strip meter to its docking station for data downloading to the computer system.

3 The Point of Care Coordinator or designee will review QC and patient outlier reports daily except weekends, monthly and holidays.

4 Quality Improvement reports or e-mails will be issued for any reoccurring problems and sent to the nurse manager or clinician for follow up.

5 Proof of remediation will be sent to the Point of Care Coordinator.

**24. PROCEDURE NOTES:**

*Refer to Addendum for Troubleshooting.*

**SUPPORTING/REFERENCE DOCUMENTATION:**

- CAP-College of American Pathologists
- TJC-The Joint Commission
- AHCA- Agency for Healthcare Administration
- StatStrip® Glucose Hospital Meter Instructions for Use Manual (2011). Waltham, MA: NOVA Biomedical Corporation.

**RELATED POLICIES, PROCEDURES, AND ASSOCIATED FORMS:**

- DH Administrative Policy: 302.03 Blood Glucose Monitoring
- DH Administrative Policy: 303.17 Critical Values – Nursing
- DH Administrative Policy: 801.6 Isolation Precaution Tier 1 & 2
- DH Administrative Policy: 801.3 Hand Hygiene
- Subcutaneous Insulin (Diabetes/Hyperglycemia Management) Physician's Orders Form DH 231
- Point of Care Testing Training Checklist-Glucose Form.
- Room Temperature Monitoring Log Form
- DH Departmental Policy: DH- 350-3820-4.0 Waived Testing Policy

**ENFORCEMENT & SANCTIONS:**

Violation of this policy may lead to disciplinary action, up to and including termination of employment, and/or removal of testing form the testing unit. Anyone willfully violation policy will be subject to disciplinary action up and including termination.