

STANDARD GUIDELINE:	Blood Glucose Monitoring - Skin Puncture Method
Program Area:	Across Care Areas
Section:	General
Reference Number:	CLI.4110.SG.006
Approved by:	Regional Lead - Acute Care & Chief Nursing Officer
Date:	Issued 2018/July/13 Revised 2024/December/30

PURPOSE:

To provide a standardized procedure for use of the Nova StatStrip Glucose Hospital Meter system across care areas in Southern Health-Santé Sud for point of care blood glucose monitoring.

DEFINITIONS:

Point of Care Testing (POCT) - refers to any testing conducted outside a lab, in a hospital, in a clinic or by a health care organization providing ambulatory care.

IMPORTANT POINTS TO CONSIDER:

The Nova StatStrip Glucose Hospital Meter System is intended for point-of-care, in vitro diagnostic, multiple- patient/resident/clients use for the quantitative determination of glucose in capillary finger stick and neonate heel stick specimens.

Docking/charging glucometer:

- When the meter is not in use, place it into the Docking/Charging Station. This enables the meter to stay fully charged.
- When the **Battery LOW** symbol displays on the screen, place the meter onto the Docking/Charging Station.
- The spare battery and the battery requires changing, replace battery as per manufacturer's guidelines. If no spare battery is available, contact Physical Plant Maintenance staff.

Installing updates:

- Coordinate with onsite Physical Plant Maintenance staff to access spare meter(s).
- Forward in-use meters for update to Physical Plant Maintenance staff.

PROCEDURE:

Quality Control

1. Perform quality control (QC) tests every 24 hours following manufacturer's guideline and prompts from the meter (preferably on the night shift).
 - QC test are only performed by a nurse.
2. Discard the first drop of control solution from the bottle to avoid contamination.
 - Meter prevents further testing unless a QC test is performed within 24 hours.
 - Date QC solution vial when opened. The solution expires 3-months after opening.
 - Record results on CLI.4110.SG.006.FORM.01 Nova Glucometer Quality Control Record.
 - QC values are displayed as **Pass** or **Fail**.
 - If control results are not within expected range, the QC failed.

- Confirm that QC checks have been within acceptable range for the meter or if this is a recurrent problem.
- Engage in problem solving and try to identify possible cause for faulty results (e.g. expired dates of test solutions and strips; incorrect lot numbers).
- If inaccurate results continue, contact Physical Plant Maintenance staff to have meter sent out for testing.
- QC records are retained for 2 years.

Performing a point-of-care skin puncture (or test)

1. Use the Nova StatStrip Glucometer according to manufacturer's guidelines (see below 'References'), follow prompts from the glucometer.
2. Follow CLI.4110.PR.001 Use of Elsevier Clinical Skills on how to perform the blood glucose monitoring.
 - Blood Specimen Collection: Glucose Point-of-Care Testing – [Adult](#), [Pediatric](#)
 - Note: Username: SH-SS, password: health
3. For test results follow CLI.4110.PL.002 Management of Critical Test Results and/or CLI.6010.SG.007 Emergency Management of Hypoglycemia (Adult and Pediatric) and/or CLI.5810.SG.007 Management of Hypoglycemia in the Neonate.
4. Record results in the client record.

Cleaning and Disinfecting

1. Cleanse and disinfect each glucometer after each patient/resident/client use by:
 - Thoroughly wiping the surface of the meter (top, bottom, left, and right sides) a minimum of 3 times horizontally followed by 3 times vertically with a hospital grade disinfectant wipe avoiding the bar code scanner and electrical connector.
2. Gently wiping the surface area of the test strip port making sure that no fluid enters the port.
 - **Do not allow liquid to enter the strip port connector or allow pooling of liquid on the touch screen. If liquid does get into the strip port or connector, immediately dry the components with a dry cloth or gauze.**
 - Ensure the meter surface stays wet for **1 minute** and is allowed to air dry for an additional **1 minute**.
 - Discard used cleansing wipes.
3. When sampling blood glucose from a patient/resident/client in isolation:
 - Cover glucometer with a plastic bag, with the open side facing the bottom of the meter (so that the test strip can be inserted);
 - Perform blood glucose assessment;
 - When exiting isolation room, discard plastic bag and cleanse/disinfect meter as described above.

Education and Competency

- All health care professionals who use Nova StatStrip Glucometer receive training during orientation.
- To maintain competency, recertification is required for all nursing staff every three years.
 - Self-directed education is completed on the provincial [Learning Management System](#), search 'Blood Glucose Monitoring-StatStrip (Nova)'.
 - Print completion certificate and give to site educator/manger.
 - And/or participate in regional education provided.
- Health care professionals, when asked by manager, may be required to demonstrate their competency by performing a return demonstration or observation of point-of-care-testing.

SUPPORTING DOCUMENTS:

[CLI.4110.SG.006.FORM.01](#) Nova Glucometer Quality Control Record

REFERENCES:

[CLI.4110.PL.002](#) Management of Critical Test Results
[CLI.4110.PL.002.SD.01](#) Critical Value Reporting Algorithm
[CLI.5810.SG.007](#) Management of Hypoglycemia in the Neonate
[CLI.6010.SG.007](#) Emergency Management of Hypoglycemia (Adult and Child)

Accreditation Canada (2021). Qmentum Program Standards – Point of Care Testing.

[Nova StatStrip Manual.pdf \(bccancer.bc.ca\)](#) (2018)

[Elsevier Clinical Skills](#) (2024)

Shared Health, Diagnostic Services. (2015). *Phlebotomy collection manual* [100-10-79].

Winnipeg, MB: Author.

Nova Biomedical Corporation. (2017). *Stat strip hospital grade meter: Instructions for use manual*.

Waltham, MA: Author.