STANTON TERRITORIAL HEALTH AUTHORITY

Yellowknife, Northwest Territories

TITLE: Nova Biomedical Glucose / Ketone Meter Patient Testing	**Revision Date:** 07-July-2016	**Issue Date:** 07-July-2014
Document Number: POC20801	**Status: Approved**	
Distribution: Point of Care Testing Manual	**Page:** 1 of 6	
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PURPOSE:

To determine a patient's whole blood glucose or ketone level.

POLICY:

See Hospital Wide Policy L-1040 Point of Care Testing (Laboratory Testing).

SAMPLE INFORMATION:

Order code	KET; glucose results from the glucometer are not recorded in the LIS.
Type	Whole Blood
Source	Capillary Puncture or Na Heparin Whole Blood collected by venipuncture
Volume	One Drop
Stability	To be performed at time of collection
Criteria for rejection and follow up action	As per SCM40100 Specimen Acceptance and Rejection Policy

REAGENTS and/or MEDIA:

- Nova Biomedical StatStrip® GLU Test Strips
- Nova Biomedical StatStrip® KET Test Strips

SUPPLIES:

- Nova Biomedical StatStrip® Glucose Ketone Hospital Meter
- Gloves
    - Lancet(s)
    - 2 x 2 Gauze
    - Alcohol Prep Pad

OR

- Transfer Pipette for use with Na Heparin venipuncture blood

SPECIAL SAFETY PRECAUTIONS:

- Handle all patient samples and testing sera using “Routine Practices”.
- Please refer to the Northwest Territories Infection Prevention and Control Manual, March 2012.
- Prior to testing all patients are to be identified as per I-0500 Use of Two Patient Identifiers.

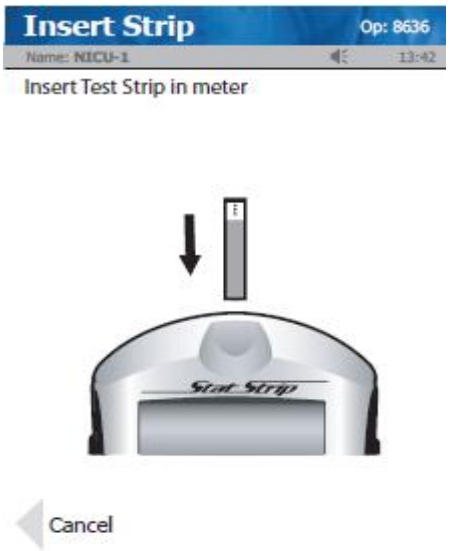
QUALITY CONTROL:

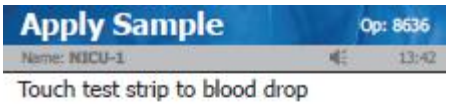
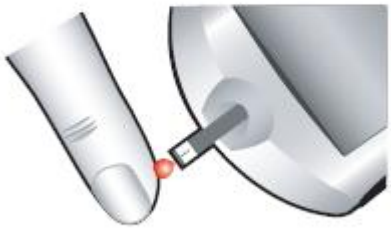
See POC20701 Nova Biomedical Glucose / Ketone Meter Quality Control Test

PROCEDURE INSTRUCTIONS:

Follow the steps in the table below to perform Glucose or Ketone Patient Testing.

Step	Action
1	Turn on by pressing the **Sleep Mode** button. 
2	Press the **OK** button to begin testing.
3	Enter your Operator ID number manually or scan your barcode.
4	Press the **OK** button to accept your Operator ID number.

5	The instrument will return to the main screen. Press the **OK** button to begin the patient test.
6	Scan the barcode on the side of the vial for the lot number of the test strips you are using. Press **OK/Enter**.
7	Enter the patient's ID (chart number) or scan the LIS generated barcode and press **OK/Enter**.
8	Insert a test strip into the top of the testing meter as shown on the screen. 
9	Obtain a drop of capillary blood by puncturing the finger or heel using a lancing device. The puncture site should be cleaned using an alcohol wipe and allowed to thoroughly air dry before obtaining the sample. See SCM20300 Capillary Puncture or SCM20400 Newborn Puncture if more details are required. Wipe the first drop of blood away, then gently milk the finger or heel until another drop of blood is obtained. **OR** A transfer pipette may be used to obtain one drop of well mixed whole blood from a Na Heparin vacutainer tube.

10	The Apply Sample screen should be displayed. 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.   **WARNING!**: 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 drop a second time**. Discard the test strip and repeat the test with a new strip.
11	The test result will appear in 6 or 10 seconds depending on which test is being performed. Do not remove the test strip until the countdown is complete. Meter results range from 0.6 – 33.3 mmol/L for glucose and 0.1 to 7.0 mmol/L for Ketones.
12	The test result is diplayed differently depending on whether it is in or out of the normal range for the analyte measurement.   • Results within the normal range are displayed in blue • Results outside the normal range are displayed in red • If the result is outside the measuring range of the meter, the results are displayed

	as: ○ <0.6 mmol/L or >33.3 mmol/L for glucose ○ <0.1 mmol/L or >7.0 mmol/L for ketones • A single arrow up or down (↑ or ↓) indicates a result outside of the normal range, but within the critical range. • A double arrow up or down (↑↑ or ↓↓) indicates a critical result **NOTE: If the glucose result is < 2.6 mmol/L or > 25.0 mmol/L, this is considered a "panic" result at STHA. Blood Glucose monitoring should, as per the L-0900 Critical Laboratory Values (Panic Values) Policy, first be repeated by the laboratory for confirmation and phoned to the physician immediately.**
13	To accept the result, press the **Accept** soft key.
14	To reject the result, press the **Reject** soft key.
15	To add a comment, press the **Comment** soft key. All data are stored into memory.
16	Dispose of the lancet into a sharps container.
17	Record the patient result value obtained on the appropriate sheet in the patient's chart **OR** type the result in to the KET - KETONES Resulting Worklist

RELATED DOCUMENTS:

- POC20701 Nova Biomedical Glucose / Ketone Meter Quality Control Test
- SCM40100 Specimen Acceptance and Rejection Policy
- L-0900 Critical Laboratory Values (Panic Values)
- I-0500 Use of Two Patient Identifiers
- SCM20200 Venipuncture
- SCM20300 Capillary Puncture
- SCM20400 Newborn Puncture

REFERENCES:

Nova Biomedical, StatStrip® Glucose Hospital Meter, Instructions for Use Manual, Nova Biomedical Corporation, Waltham, MA, 2011

REVISION HISTORY:

REVISION	DATE	Description of Change	REQUESTED BY
1.0	23 Dec 2013	Initial Release	JGD Bernier
2.0	15 May 2014	Updated to include reference to: NWT Infection Prevention & Control Manual; SCM40100 Specimen Acceptance and Rejection Policy; I-0500 Use of Two Patient Identifiers	JGD Bernier