



# ANN ARBOR FIRE DEPARTMENT

## Standard Operating Procedures – 3.23 Glucose Monitor



### GLUCOSE MONITOR

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Effective: September 28, 2018  
Scheduled Review: September 28, 2021  
Replaces: 413 Glucose Monitor  
Approved: Fire Chief Mike Kennedy

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#### I. PURPOSE

The Clinical Laboratory Improvement Amendments (CLIA) of 1988 statute is an amendment to the Public Health Services Act in which Congress revised the federal program for certification and oversight of clinical laboratory testing. This procedure has been developed to provide guidance for the appropriate use of the blood glucose monitor.

#### II. DEFINITIONS

Authorized personnel: Active basic life support personnel that have been recognized by the Washtenaw / Livingston Medical Control Authority Medical Director, who oversees all medical care within Washtenaw County.

Glucometer: Used to provide information to manage blood glucose levels.

Lancing device: Used for finger puncture.

Test strip: Used for blood or control testing.

Testing sites: Sites on the human body used to obtain blood samples

Control solution: Synthetic solution used to run a check to make sure the meter and the test strips are working properly.

#### III. CALBRATION AND CONTROL

##### A. CLIA Waiver

- i. The Ann Arbor Fire Department shall be FDA compliant by maintaining a current CLIA waiver.
- ii. The CLIA waiver will be renewed every two (2) years.
- iii. There shall be a copy of the CLIA waiver on file in the training division

##### B. Calibration

- i. The blood glucose monitoring system should be calibrated as manufacturer recommends if it does not calibrate automatically.

##### C. Control Test

- i. Control tests shall be performed as recommended by manufacturer. Most manufactures recommend a control test to be performed weekly to make sure the unit and the test strips are working properly.



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### D. Control Test Procedure

- i. A control test should be performed every Saturday on each meter.
- ii. Confirm that the control solution and test strips are within date.
- iii. Slowly agitate the control solution back and forth between your hands.
- iv. Open the test container and remove a test strip.
- v. Holding the round end of the test strip, insert the strip (silver side up) into the test slot until it stops and a beep sounds and the “apply sample” icon appears.
- vi. Squeeze a small drop of control solution onto a non-porous surface, such as the fingertip of a gloved hand.
- vii. Touch and hold the test end of the test strip to the drop until the glucometer beeps. The timer will count down five (5) seconds and the test result will appear in the display.
  1. Compare the results to the range printed on the side of the test strip container. Record the CARS meter number, the date, the control lot number, the control range, and the test results in the CARS log.
  2. If the results are inconsistent or are not within the specific range, make sure the control solution and test strips are within date, the batteries are working, and the test solution is at room temperature. Repeat the control test. If the results are once again out of range, place the unit out of service and notify the on-duty supervisor.
  3. Remove the test strip and dispose in an appropriate area.
  4. Controls can be ran at other times if there are concerns about the accuracy of the monitor/test strips.

## IV. BLOOD GLUCOSE TESTING

If Washtenaw / Livingston Medical Control Authority treatment protocols call for the testing of blood glucose, follow the below procedure.

### A. Blood Glucose Testing Procedure

- i. Select the most appropriate site:
  1. Fingertips
  2. Ear lobe
  3. Palm
  4. Forearm (last suggested site)
  5. Heel stick in infants
- ii. Cleanse the site with alcohol prep.
- iii. Remove the test strip.
- iv. With the unit off, insert the test strip into the monitor (silver side up) until a beep sounds and the “apply sample” icon appears.
- v. Press the lancing device firmly against the puncture site and push button to release. Form a small round drop of blood.
- vi. Touch and hold the test end of test strip to the drop of blood until the meter beeps. After 5 seconds, the test result will be displayed.
- vii. Carefully dispose of the test strip and the lancing device in an appropriate area to prevent injuries and contamination.

- B. Follow appropriate Washtenaw / Livingston Medical Control Authority treatment protocol.



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### V. BLOOD GLUCOSE MONITOR

Operating Temperature: 41°F to 113°F.

Measuring Range: 10 to 600 mg/dl

“HI” Alarm: BGL greater than 600 mg/dl

“LO” Alarm: BGL less than 10 mg/dl

Cleaning the monitor

- A. Clean the unit with a non-abrasive hospital grade disinfectant or a 10% bleach solution.
- B. Spray the cleaner onto an applicator (towel), than wipe the unit down.
- C. Do not submerge or saturate with cleaner solution. Doing so will damage the unit.