Glucometer Use

Supersedes: 10-31-14
Effective: 10-06-16

PURPOSE

Point of care glucose testing holds many advantages for the evaluation and differential diagnosis of the patient presenting with an acute change in mental status. The use of capillary blood testing can aid in confirmation of a diagnosis of hypoglycemia for both the BLS and ALS provider. Recognizing that portable glucose testing might not be as accurate as testing performed using hospital laboratory equipment, the goal of this SOP is to assure the best degree of accuracy given the current available technology.

STORAGE

Glucometers will be maintained on every Boston EMS ambulance. Solutions for testing the glucometer include both high and low reading solutions and will be supplied by Boston EMS Materials Management Division. These solutions will be stored either in a heated compartment of the ambulance or in the ambulance satellite. The glucometer strips and high/low solutions will be marked with the day, month, and year opened, and replaced every 90 days. Solutions that are found at either extremes of temperature prior to the change out date will be discarded by the crew and replaced prior to the scheduled change date.

TESTING / QUALITY ASSURANCE OF GLUCOMETER

The glucometer must be checked on a daily basis using control solution to confirm that the monitor and test strips are working properly. Control results must be within the "expected results" printed on the test strip instruction sheet included with the test strip packaging. Ensure the lot number printed on the instruction sheet matches the lot number printed on the test strip foil packet.

Depending on the type of unit (ALS vs. BLS), the results of the daily high/low test will be recorded on either the BLS Special Equipment Log or the ALS daily Controlled Substance Activity Log. These documents will be turned in on a monthly basis to RTQI. The Medical Director or designee will be responsible for overseeing the high/low data collected on these documents.

If the crew finds that while testing either of the control solutions is out of the determined range, the solution(s) will be replaced and the device retested. If on replacement of solutions a discrepancy still exists, the glucometer itself will be replaced.

Whenever there is a change of test strips, the appropriate procedures should be followed according to the manufacturer’s guidelines.

Whenever the Glucometer is used for testing patients' blood sugar, it shall be used in accordance with the Department's Infection Control Policy utilizing appropriate blood barrier protection and an appropriate safety lancet device. It is important to remember that whenever using the Glucometer for blood sugar analysis or control testing, the device should be placed horizontally, preferably on a table or similar resting platform to ensure that accurate results are obtained.