

**PEORIA AREA EMS SYSTEM
PREHOSPITAL CARE MANUAL**

**Blood Glucose Testing
Procedure**

EMS personnel who have been properly trained may perform blood glucose testing in the prehospital setting to determine a patient's blood sugar. Findings must be documented in the patient care report.

1. Prepare all necessary equipment. Make sure the meter is coded correctly. If the code number on the meter does not correlate with the code number on the bottle of testing strips, press the code ("C") button until the numbers match.
 2. Obtain a blood sample using a drop of venous blood from an IV site (**if** the brand of glucometer being used is calibrated to test venous blood).
- OR**
3. Cleanse the puncture site with an alcohol prep (try to avoid the patient's thumb and index finger).
 4. Use a lancet device to puncture the skin and wipe away the 1st drop of blood with a 2x2 (or 4x4) gauze pad so excess alcohol does not dilute the sample.
 5. Apply the drop of blood to the test site and wait for the meter to count down & display the result.
 6. Discard the testing supplies in the appropriate biohazard containers.
 7. For values < 60mg/dL and clinical presentation of hypoglycemia, the patient should receive Oral Glucose, Dextrose or Glucagon per protocol.
 8. Blood glucose levels should be obtained before and within 5 minutes after the administration of Oral Glucose, Dextrose or Glucagon.
 9. "Normal" range values for blood glucose results are 70-110mg/dL.

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Critical Thinking Elements

- An inaccurate test result may occur if there is an inadequate amount of blood on the testing strip, the test strip code number does not match the glucometer, use of expired test strips, dirty testing area, improper sequence of testing, failure to wipe away the 1st drop of blood and failure to perform quality controls / poor glucometer maintenance.
- Blood glucose testing is a tool to aid in the overall evaluation of your patient. Treatment should be based on clinical presentation of the patient and not solely on the basis of test results.
- Established infection control procedures should be followed when performing blood glucose testing (i.e. gloves).
- Agencies performing blood glucose testing must be trained by the manufacturer's representative or by designated individuals certified by the EMS Medical Director to provide the training.
- Glucometers should be tested (using quality control solution) at least once per week, any time a new bottle of strips is put into service and anytime the glucometer is dropped. The results should be documented on the Peoria Area EMS System *Glucometer Log* (or on the individual agency log). The log should be kept in a binder in the ambulance (or other vehicle) and made available upon request of EMS Office staff.
- Glucometer strips are sensitive to moisture in the air. Strips should always be stored in the original container with the desiccant intact. When removing strips from the container, take care to promptly remove the strip and immediately replace the cap tightly to prevent damaging the remaining strips.

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INSERT COPY OF PAEMS GLUCOMETER LOG HERE