



Performance Standard		7501
Effective April 1, 2018		Expires March 31, 2019
Category III Skill – High Frequency/Low Risk: Use of Glucometer	Approval: Medical Director Reza Vaezazizi, MD	Signed
Applies To: EMT, AEMT, PM, MICN, BHP, EMS System	Approval: REMSA Director Bruce Barton	Signed

Terminal Performance Objective

Measurement of venous or capillary blood glucose when clinically indicated, treatment per applicable treatment protocol(s), and reassessment of blood glucose measurement(s) following treatment of hypoglycemia

Before using the glucometer EMTs, AEMTs, and paramedics must:

1. Follow the manufacturer’s guidelines regarding calibration and cleaning
2. Upon patient contact, provide emergency stabilization in a prioritized manner
3. EMTs:
 - a. Determine that assessment of blood glucose is clinically indicated by:
 - i. AEMT or paramedic direction
4. AEMTs and paramedics:
 - a. Determine that assessment of blood glucose is clinically indicated by:
 - i. REMSA authorized policy, protocol, or standard
 - ii. Altered mental status
 - iii. Neurological dysfunction
 - iv. History of diabetes
 - v. Vague or general symptoms or complaints
 - vi. Need to reassess unusual and/or unexpected measurement(s)
 - vii. Need to reassess following treatment of hypoglycemia
 - viii. AEMT or paramedic judgment
 - ix. Base hospital order (BHO)
5. Recognize contraindications to blood sampling site selection:
 - a. Signs of local infection
 - b. Wounds or bleeding

While using the glucometer EMTs, AEMTs, and paramedics must:

1. Use appropriate personal protective equipment (PPE)
2. Prepare the blood sampling site:
 - a. Use alcohol swab to clean the side of the fingertip pad or, in infants, the side of the heel
 - i. Allow site to dry completely before utilizing the lancet
3. Prepare the glucometer
 - a. Insert a test strip into the glucometer following the manufacturer’s guidelines
 - b. Ensure that the glucometer is ready to receive a blood sample
4. Use standard precautions to prevent sharp instrument or needle stick injuries
5. Obtain a blood sample:
 - a. Quickly prick the blood sampling site with the lancet
 - b. Allow a drop of blood to form
6. Transfer the blood sample to the test strip following the glucometer manufacturer’s guidelines
7. Place the lancet in the portable sharps container
8. Apply an adhesive band-aid to the blood sampling site
9. Read, report to the EMS team, and record the blood glucose measurement
10. Provide clinically indicated treatment following the applicable REMSA Treatment Protocol(s)
11. Consult base hospital if clinically indicated

12. Reassess blood glucose measurements following clinically indicated treatment in:
 - a. Adults originally less than 80 mg / dL
 - b. Pediatrics originally less than 70 mg / dL

Critical Success Targets for Use of Glucometer

1. Point of care measurement of venous or capillary blood glucose
2. Reassessment of blood glucose measurements following clinically indicated treatment in:
 - a. Adults originally less than 80 mg / dL
 - b. Pediatrics originally less than 70 mg / dL

System Benchmark

Percentage of patients receiving blood glucose measurement

Core Competency Requirements Covered during Education and Training on Glucometers

1. Endocrinological anatomy and physiology
2. Pathophysiology of hypoglycemia and hyperglycemia
3. Normal and abnormal blood sugar readings for adult, pediatric, and neonatal populations.
4. Assessment of mental status and recognition of alteration
5. Assessment of neurological function and recognition of dysfunction
6. Calibration and cleaning of the glucometer per the manufacturer's guidelines
7. Identification of need for glucometer use and contraindications to blood sampling site selection
8. Proper application of the device on the patient
9. Demonstrates proper technique for use of the glucometer
10. Post application recognition of clinically indicated treatment and need for reassessment

Adjunctive Performance Standards

Currently, no adjunctive performance standards have been created

Equipment Requirements

1. PPE
2. Model patient
3. Glucometer with lancets, test strips, control solution, and supplies
4. Alcohol swabs
5. Gauze sponges
6. Portable sharps container
7. Adhesive Band-Aid
8. Covered waste container

Instructor Resource Materials

1. Applicable manufacturer's guidelines
2. Applicable REMSA Treatment Protocols
3. NHTSA EMS Educational Instructor Guidelines for EMT, AEMT and Paramedic

Use of Glucometer Validation

PERFORMANCE CRITERIA: 100% accuracy required on all items marked with an *

Before using the glucometer, the EMT, AEMT, or paramedic must:

Points	Score	Performance Steps	Additional Information
1		Take or verbalize body substance isolation *	Selection: gloves, goggles, mask, gown, booties, P100 as needed
1		Follow the manufacturer's guidelines regarding calibration and cleaning *	
1		Upon patient contact, provide emergency stabilization in a prioritized manner *	
1		EMTs must determine that assessment of blood glucose is clinically indicated by AEMT or paramedic direction	
1		AEMTs and paramedics must determine that assessment of blood glucose is clinically indicated	<ol style="list-style-type: none"> 1. REMSA authorized policy, protocol, or standard 2. Altered mental status 3. Neurological dysfunction 4. History of diabetes 5. Vague or general symptoms or complaints 6. Need to reassess unusual and/or unexpected measurement(s) 7. Need to reassess following treatment of hypoglycemia 8. AEMT or paramedic judgment 9. Base hospital order (BHO)
1		Recognize contraindications to blood sampling site selection *	<ol style="list-style-type: none"> 1. Signs of local infection 2. Wounds or bleeding

While using the glucometer, the EMT, AEMT, or paramedic must:

Points	Score	Performance Steps	Additional Information
1		Prepare the blood sampling site *	<ol style="list-style-type: none"> 1. Use alcohol swab to clean the side of the fingertip pad or, in infants, the side of the heel <ol style="list-style-type: none"> a. Allow site to dry completely before utilizing the lancet
1		Prepare the glucometer	<ol style="list-style-type: none"> 1. Insert a test strip into the glucometer following the manufacturer's guidelines 2. Ensure that the glucometer is ready to receive a blood sample
1		Use standard precautions to prevent sharps injuries *	
1		Obtain a blood sample	<ol style="list-style-type: none"> 1. Quickly prick the blood sampling site with the lancet 2. Allow a drop of blood to form

1		Transfer the blood sample to the test strip following the glucometer manufacturer's guidelines	
1		Place the lancet in the portable sharps container *	
1		Apply an adhesive band-aid to the blood sampling site	
1		Read, report to the EMS team, and record the blood glucose measurement	
1		Provide clinically indicated treatment following the applicable REMSA Treatment Protocol(s) *	
1		Consult base hospital if clinically indicated	
1		Reassess blood glucose measurements following clinically indicated treatment *	<ol style="list-style-type: none"> 1. Adults originally less than 80 mg / dL 2. Pediatrics originally less than 70 mg / dL
1		Accurately document all assessment findings, therapeutic treatments, and the patient's response to therapy	

Critical Failure Criteria

- ___ Failure to take or verbalize BSI appropriate to the skill prior to performing the skill
- ___ Failure to follow the manufacturer's guidelines regarding calibration and cleaning
- ___ Failure to provide emergency stabilization in a prioritized manner
- ___ Failure to recognize contraindications to blood sampling site selection
- ___ Failure to prepare the blood sampling site
- ___ Failure to use standard precautions to prevent sharp instrument or needle stick injuries
- ___ Failure to place the lancet or IV stylet in the portable sharps container
- ___ Failure to provide clinically indicated treatment following the applicable REMSA Treatment Protocol(s)
- ___ Failure to reassess blood glucose measurements following clinically indicated treatment
- ___ Any procedure that would have harmed the patient