



POLICY: 554.42  
TITLE: Blood Sugar Emergencies

EFFECTIVE: 12/23/20  
REVIEW: 12/2025  
SUPERCEDES:

APPROVAL SIGNATURES ON FILE IN EMS OFFICE

**BLOOD SUGAR EMERGENCIES**

- I. AUTHORITY  
Health and Safety Code, Division 2.5, California Code of Regulations, Title 22, Division 9
- II. PURPOSE  
To serve as a patient treatment standard for EMRs, EMTs, and Paramedics within their scope of practice.
- III. PROTOCOL  
Blood sugar testing is the only accurate method to determine if a patient is hypoglycemic or hyperglycemic. Symptoms are not specific.
  - Hypoglycemia: Blood glucose < than 60mg/dl. Characterized by: ALOC, seizures, combativeness, disorientation, diaphoresis, shaking.
  - Hyperglycemia: Often triggered by an underlying infection. Characterized by: thirst and increased urination, confusion, dehydration, deep, and rapid respirations, nausea, vomiting, fruity odor on breath, missed insulin dose.

<b>EMR STANDING ORDERS</b>	
<b>HYPOGLYCEMIA/HYPERGLYCEMIA</b>	
<b>Patient Assessment</b>	Circulation, Airway, Breathing. Assess vitals q 5 minutes
<b>Oxygen Administration</b>	Provide oxygen if appropriate
<b>EMT STANDING ORDERS</b>	
<b>HYPOGLYCEMIA/HYPERGLYCEMIA</b>	
<b>Note</b>	Must perform items in EMR standing orders if applicable
<b>Glucometer</b>	Check blood sugar
<b>Glucose</b>	Oral glucose (one tube) 37.5 gram's if patient can protect airway and has a gag reflex if blood sugar is <60mg/dl. no repeat doses
<b>Pulse Oximetry</b>	Report initial reading to paramedic if applicable

<b>PARAMEDIC STANDING ORDERS</b>	
<b>HYPOGLYCEMIA/HYPERGLYCEMIA</b>	
<b>Note</b>	Must perform items in EMR and EMT standing orders if applicable
<b>Monitor</b>	Treat heart rhythm as appropriate
<b>IV/IO Access</b>	If blood sugar is too high to measure, the patient is clinically dehydrated (dry mucous membranes, poor skin turgor, tachycardia, etc), AND the patient is not on dialysis, CONSIDER 500 ml bolus of normal saline
<b>Dextrose</b>	For blood sugar <60mg/dl and signs of hypoglycemia are present: D50W 25gms IV/IO. Recheck blood sugar after 5 minutes
<b>Glucagon</b>	If no IV/IO access immediately available with blood glucose <60 mg/dl, give one (1) unit IM. May repeat once. Recheck blood glucose 5 minutes after each dose
<b>Base Physician Orders</b>	RELEASE-AT-SCENE: Competent adults with normal vital signs, blood sugar, and mental status 10 minutes after ALS intervention, may be released if a cause of their condition and its solution has been identified. Refer to Refusal of EMS Service Policy 570.35

Clinical PEARLS:

- Dextrose 10% IV Piggyback or IV drip, hang a 250 bag of 10% dextrose either piggyback to the normal saline bag or directly to IV hub/saline lock. Administer 100-200ml bolus. Reassess between boluses for improvements. If D-50 is not available
- Intravenous access is preferred over Intraosseous unless patient is unstable
- Secure airway with simplest technique, i.e. BLS airway unless unable to manage