

	<b>COUNTY OF SACRAMENTO</b> EMERGENCY MEDICAL SERVICES AGENCY	Document #	8002.01	
	<b>PROGRAM DOCUMENT:</b>  <b>Diabetic Emergency</b> <b>(Hypoglycemia/Hyperglycemia)</b>		Initial Date:	04/19/21
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EMS Medical Director

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EMS Administrator

**Purpose:**

- A. To serve as a treatment standard for patients exhibiting signs and symptoms of a diabetic emergency.

**Authority:**

- A. California Health and Safety Code, Division 2.5
- B. California Code of Regulations, Title 22, Division 9

**Protocol:**

**Hypoglycemia:**

- 1. Decreased responsiveness (Glasgow Coma Score < 14),
- 2. Blood Glucose level ≤ 60mg/dl.
- 3. History of Diabetes
- 4. Determine, if possible, when patient was last observed normal.

<b>BLS</b>
<ul style="list-style-type: none"> <li>1. Supplemental O2 as necessary to maintain SpO2 ≥ 94%. Use the lowest concentration and flow rate of O2 as possible.</li> <li>2. Airway adjuncts as needed.</li> <li>3. If trauma suspected, assess for traumatic injury and/or need for Spinal Motion Restriction (SMR) when indicated per PD# 8044.</li> <li>4. Perform blood glucose determination               <ul style="list-style-type: none"> <li>• Oral Glucose: Orange juice sweetened with sugar, regular soft drinks, candy, oral glucose paste or 50% dextrose only if the patient is alert and oriented. Have the patient swallow a small amount of water, and if tolerated, EMT may give glucose.</li> </ul> </li> <li>5. Transport.</li> </ul>
<b>ALS</b>
<ul style="list-style-type: none"> <li>1. Initiate vascular access and titrate to a Systolic Blood Pressure (SBP) &gt; 90 mmHg.</li> <li>2. If blood glucose &gt; 60 mg/dl, consider other causes of decreased sensorium.</li> <li>3. If blood glucose ≤ 60 mg/dl, treat as follows:               <ul style="list-style-type: none"> <li>• Dextrose 10-12.5 grams IV. If blood sugar remains ≤ 60 mg/dl, give additional Dextrose 12.5-15 grams IV. May repeat for total of 50 grams.</li> </ul> </li> <li>4. If IV access is unavailable or delay is anticipated, treatment options are:               <ul style="list-style-type: none"> <li>• Glucagon: 1 mg Intramuscular (IM).</li> </ul> </li> <li>5. Airway management as needed per PD# 8020.</li> </ul>

**NOTE:** Concentrations of 10% Dextrose (D10) or 50% Dextrose (D50) may be used.

- If IV access is unavailable and the blood sugar  $\leq 60$  mg/dl or decreased responsiveness continues for more than fifteen (15) minutes after administration of Glucagon, IO access should be established.
6. In the event of glucometer failure, administer 10-12.5 grams of Dextrose or 1 mg of Glucagon based on clinical assessment.
  7. Cardiac monitoring.

**Hyperglycemia:**

1. Blood Glucose Level  $\geq 350$ mg/dl
2. History of Diabetes
3. Weakness
4. Confusion
5. Nausea/Vomiting
6. Fruity-smelling breath
7. Shortness of Breath
8. Coma

**BLS**

1. Supplemental O<sub>2</sub> as necessary to maintain SpO<sub>2</sub>  $\geq 94\%$ . Use the lowest concentration and flow rate of O<sub>2</sub> as possible.
2. Airway management as needed per PD# 8020.
3. Spinal motion restriction when indicated per PD# 8044.
4. Perform blood glucose determination.
5. If patient is seizing, protect the patient from further injury.
6. Transport

**ALS**

1. Perform blood glucose determination, if blood glucose  $\geq 350$  mg/dl and no evidence of fluid overload, initiate vascular access, and administer a Normal Saline bolus of 500ml.
2. Airway adjuncts as needed
3. Noninvasive Ventilations (NIV) as needed per PD# 8829
4. Cardiac Monitoring
5. Ondansetron when indicated for Nausea/Vomiting per PD# 8063

**Cross Reference:** PD# 8044 – Spinal Motion Restriction  
PD# 8829 – Noninvasive Ventilations  
PD# 8063 – Nausea and Vomiting  
PD# 8015 – Trauma  
PD# 8020 – Respiratory Distress: Airway Management  
PD# 8003 – Seizures

**Consider AEIOUTIPS:**

Alcohol            Trauma  
Epilepsy          Infection  
Insulin            Psychiatric  
Overdose          Stroke or Cardiovascular  
Uremia