

	COUNTY OF SACRAMENTO EMERGENCY MEDICAL SERVICES AGENCY	Document #	8002.02
	PROGRAM DOCUMENT:	Initial Date:	04/19/21
	Diabetic Emergency (Hypoglycemia/Hyperglycemia)	Last Approved Date:	06/22/23
		Effective Date:	11/01/23
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Signature on File

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EMS Medical Director

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.~~

BLS
<ol style="list-style-type: none"> 1. Supplemental O2 as necessary to maintain SpO2 ≥ 94%. Use the lowest concentration and flow rate of O2 possible. 2. Airway adjuncts as needed. 3. If trauma suspected, assess for traumatic injury and/or need for Spinal Motion Restriction (SMR) when indicated per PD# 8044. 4. Perform blood glucose determination. 5. If blood glucose is ≤ 60 mg/dl AND the patient is awake, able to cooperate and swallow, administer: <ul style="list-style-type: none"> • 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. 6. Transport.
ALS
<ol style="list-style-type: none"> 1. initiate vascular access and titrate to a Systolic Blood Pressure (SBP) > 90 mmHg. 2. If blood glucose > 60 mg/dl, consider other causes of decreased sensorium. 3. If blood glucose ≤ 60 mg/dl, treat as follows: <ul style="list-style-type: none"> • Dextrose 10-12.5 grams IV. If blood sugar remains ≤ 60 mg/dl, give additional Dextrose 12.5-15 grams IV. May repeat for a total of 50 grams. <p>NOTE: Concentrations of 10% Dextrose (D10) or 50% Dextrose (D50) may be used.</p>

4. If IV access is unavailable or delay is anticipated, ~~treatment options are~~ utilize one of the following options:
- Glucagon: 1 mg Intramuscular (IM).
 - Establish IO access and administer Dextrose 10-12.5 grams IV. If blood sugar remains ≤ 60 mg/dl, give additional Dextrose 12.5-15 grams IV. May repeat for a total of 50 grams.
- ~~5. Airway management as needed per PD# 8020—Respiratory Distress: Airway Management.~~
- ~~NOTE: Concentrations of 10% Dextrose (D10) or 50% Dextrose (D50) may be used.~~
- ~~• If IV access is unavailable and the blood sugar ≤ 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 ≥ 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
<ol style="list-style-type: none"> 1. Supplemental O2 as necessary to maintain SpO2 $\geq 94\%$. Use the lowest concentration and flow rate of O2 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 the patient is seizing, protect the patient from further injury. 6. Transport
ALS
<ol style="list-style-type: none"> 1. Perform blood glucose determination; if blood glucose ≥ 350 mg/dl and there is 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# 8003 – Seizures
 - PD# 8015 – Trauma
 - PD# 8020 – Respiratory Distress: Airway Management
 - PD# 8044 – Spinal Motion Restriction
 - PD# 8063 – Nausea and Vomiting
 - PD# 8829 – Noninvasive Ventilations

Consider AEIOUTIPS:

Alcohol	Trauma
Epilepsy	Infection
Insulin	Psychiatric
Overdose	Stroke or Cardiovascular
Uremia	