

**COUNTY OF SACRAMENTO
EMERGENCY MEDICAL SERVICES AGENCY**



Program Document: **Diabetic Emergency
(Hypoglycemia/Hyperglycemia)**

Policy Number: 8002.03

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Signature on File

EMS Medical Director

Signature on File

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:

- A. Decreased responsiveness (Glasgow Coma Score < 14)
- B. Blood Glucose level $\leq$ 60mg/dl.
- C. History of Diabetes

BLS:

1. Supplemental O₂ as necessary to maintain SpO₂ $\geq$ 94%. Use the lowest concentration and flow rate of O₂ possible.
2. Airway adjuncts as needed.
3. Perform blood glucose determination.
4. If blood glucose is $\leq$ 60 mg/dl AND the patient is awake, able to cooperate and swallow, administer:
 - a. 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, the EMT may give glucose.

5. Transport.

ALS:

1. Initiate vascular access.
2. If blood glucose > 60 mg/dl, consider other causes of decreased sensorium.
3. If blood glucose ≤ 60 mg/dl, treat as follows:
 - a. Dextrose 12.5 grams IV. If blood sugar remains ≤ 60 mg/dl, give additional Dextrose 12.5-25 grams IV. May repeat for a total of 50 grams.

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

4. If IV access is unavailable or delay is anticipated, utilize one of the following options:
 - a. Glucagon: 1 mg Intramuscular (IM).
 - b. Establish IO access and administer Dextrose 12.5 grams IV. If blood sugar remains ≤ 60 mg/dl, give additional Dextrose 12.5-25 grams IV. May repeat for a total of 50 grams.
5. In the event of glucometer failure, administer 12.5 grams of Dextrose or 1 mg of Glucagon based on clinical assessment.

Hyperglycemia:

- A. Blood Glucose Level ≥ 350 mg/dl
- B. History of Diabetes
- C. Weakness
- D. Confusion
- E. Nausea/Vomiting
- F. Fruity-smelling breath
- G. Shortness of Breath
- H. Coma

BLS:

1. Supplemental O₂ as necessary to maintain SpO₂ $\geq 94\%$. Use the lowest concentration and flow rate of O₂ as possible.
2. Transport

ALS:

1. Perform blood glucose determination; if blood glucose $\geq$ 350 mg/dl and there is no evidence of fluid overload, initiate vascular access and administer a Normal Saline bolus of 500ml.

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	