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|  | <b>COUNTY OF SACRAMENTO</b><br>EMERGENCY MEDICAL SERVICES AGENCY | Document #          | 8002.02  |
|   | PROGRAM DOCUMENT:  | Initial Date:       | 04/19/21 |
|   | <b>Diabetic Emergency</b><br><b>(Hypoglycemia/Hyperglycemia)</b> | Last Approved Date: | 06/10/23 |
|   |  | Effective Date:     | 11/01/23 |
|   |  | Next Review Date:   | 06/01/25 |

Signature on File

Signature on File

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  |
|--|
| 1. Supplemental O2 as necessary to maintain SpO2 ≥ 94%. Use the lowest concentration and flow rate of O2 as possible.<br>2. Airway adjuncts as needed.<br>3. <del>If trauma suspected, assess for traumatic injury and/or need for Spinal Motion Restriction (SMR) when indicated per PD# 8044.</del><br>4. Perform blood glucose determination.<br>5. <del>If blood glucose is ≤ 60 mg/dl AND the patient is awake, able to cooperate and swallow, administer:</del> <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> 6. Transport. |
| ALS  |
| 1. Initiate vascular access <del>and titrate to a Systolic Blood Pressure (SBP) &gt; 90 mmHg.</del><br>2. If blood glucose > 60 mg/dl, consider other causes of decreased sensorium.<br>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> <b>NOTE:</b> Concentrations of 10% Dextrose (D10) or 50% Dextrose (D50) may be used.<br><br>4. If IV access is unavailable or delay is anticipated, <del>treatment options are</del> 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  $\leq 60$  mg/dl, give additional Dextrose 12.5-15 grams IV. May repeat for 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  $\leq 60$  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 the 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# 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   |                          |