



<b>Hypo/Hyperglycemia</b>	
Policy Number: 7306 Effective Date: January 1, 2020      Review Date: May 25, 2021	Approved: Bryan Cleaver, EMS Administrator Mark Luoto, EMS Medical Director
Authority: California Health and Safety Code, Division 2.5 EMS, Sections 1797.220 & 1797.221	
<b>I. Definition</b>	
A. Abnormal glucose levels in patients with known or suspected diabetes.	
<b>II. Basic Life Support</b>	
A. Provide General Medical Care. B. For suspected narcotic overdose refer to <i>treatment guideline 7203 Poisoning/Overdose</i> . C. For suspected stroke, refer to <i>treatment guideline 7401 Acute Cerebrovascular Accident (Stroke)</i> . D. Check blood glucose: <ol style="list-style-type: none"> <li>1. If BG &lt; 50 mg/dL to 80 mg/dL and patient is alert and able to self-administer:                             <ol style="list-style-type: none"> <li>a. Administer oral glucose paste or solution.</li> <li>b. Use caution when administering oral glucose in patients with a BG &lt; 50 mg/dL.</li> <li>c. Recheck blood glucose until symptoms resolve or a normal reading is achieved.</li> </ol> </li> </ol>	
<b>III. Advanced Life Support</b>	
<b>Adult</b>	<b>Pediatric (less than 14 years of age)</b>
A. If BG < 50 mg/dL to 80 mg/dL and patient has an altered mental status and unable to self-administer oral glucose: <ol style="list-style-type: none"> <li>1. Administer Dextrose 25 G IV infusion (D10) or IVP (D50). Titrate to achieve normal mental status. D10 is preferred over D50.                             <ol style="list-style-type: none"> <li>a. May repeat once if BG remains below 60 mg/dL and symptoms persist.</li> </ol> </li> <li>2. If unable to establish IV, administer Glucagon 1 mg IM.                             <ol style="list-style-type: none"> <li>a. Do not repeat.</li> </ol> </li> </ol> B. If patient is hyperglycemic and symptomatic: <ol style="list-style-type: none"> <li>1. Administer NS fluid bolus 10 ml/kg IV.                             <ol style="list-style-type: none"> <li>a. May repeat as indicated.</li> <li>b. Max total volume 1 L.</li> <li>c. Reassess vital signs every 250 ml to ensure lung sounds remain clear.</li> </ol> </li> </ol> C. If seizures occur refer to <i>treatment guideline 7402 Seizures</i> .	A. If BG < 50 mg/dL to 80 mg/dL and patient has an altered mental status and unable to self-administer oral glucose: <ol style="list-style-type: none"> <li>1. Administer 10% Dextrose IV per pediatric medication administration guide.</li> <li>2. May repeat once if BG remains below 60 mg/dL and symptoms persist.</li> <li>3. If unable to establish IV, administer Glucagon per pediatric medication administration guide.                             <ol style="list-style-type: none"> <li>a. Do not repeat.</li> </ol> </li> </ol> B. If BG > 300 mg/dL: <ol style="list-style-type: none"> <li>1. Administer NS fluid bolus 20 ml/kg IV.                             <ol style="list-style-type: none"> <li>a. Do not repeat.</li> </ol> </li> </ol>
<b>IV. Special Considerations</b>	
A. If Glasgow Coma Scale < 15 and etiology unclear, consider AEIOU TIPS. B. 10% Dextrose is the preferred concentration for use. 50% Dextrose optional. C. BG may require 15 minutes or more to show improvements after Glucagon administration. D. Type I Diabetics who present with signs of DKA (tachypnea, ETCO <sub>2</sub> less than 25 mmHg) may require more than 1 L NS for prolonged transports. Base Hospital consultation is advised if administering greater than 1 L NS.	
<b>V. Base Orders</b>	
A. None.	
<b>VI. Contraindications</b>	
A. NS fluid bolus is contraindicated in patients with a history of CHF or renal failure.	
<b>VII. Cross Reference</b>	
A. General Medical Care B. Seizures C. Acute Cerebrovascular Accident (Stroke) D. Poisoning/Overdose	Policy No. 7001 Policy No. 7402 Policy No. 7401 Policy No. 7203

