

HEALTHEAST MEDICAL TRANSPORTATION
MEDICAL OPERATIONS MANUAL

3G HYPOGLYCEMIA

PATIENT CARE GOALS

- Restore normal blood sugar levels, restore normal mental status and function, and ensure adequate oxygenation, ventilation and perfusion.
- Provide patient education and ensure patient safety if not transported.

EMT

ADULT	PEDIATRIC (less than 60 kg)
<ol style="list-style-type: none"> 1. Assess the patient and provide initial care, including oxygen and vascular access, per 1B General Assessment and Care. 2. Obtain an initial blood glucose level. Provide treatment if the patient has signs of hypoglycemia <u>AND</u> the blood glucose level is less than 60 mg/dL.¹ 3. Assess for and turn off insulin pump if one is present.² 4. If the patient is able to protect their own airway administer oral glucose (Glucose) or other oral sugar. 5. If level of consciousness is depressed, administer glucagon hydrochloride (Glucagon)³ 1 mg IM. For <u>paramedics</u> administration of glucagon hydrochloride (Glucagon) should only be considered as an alternative to dextrose when two or more IV attempts have failed. 6. Recheck the blood glucose level. If level does not increase and/or mental status does not improve request ALS or transport the patient. 	<ol style="list-style-type: none"> 1. Assess the patient and provide initial care, including oxygen and vascular access, per 1B General Assessment and Care. 2. Obtain an initial blood glucose level. Provide treatment if the patient has signs of hypoglycemia <u>AND</u> the blood glucose level is below the threshold for the child's age group.¹ <p style="margin-left: 20px;"><u>Less than 1 year old</u> Treat blood glucose levels less than 50 mg/dL</p> <p style="margin-left: 20px;"><u>1 to 12 years old</u> Treat blood glucose levels less than 60 mg/dL</p> 3. Assess for and turn off insulin pump if one is present.² 4. If the child's age is 1 year or older and able to protect their own airway, administer oral glucose (Glucose) or other oral sugar. 5. If level of consciousness is depressed, administer glucagon hydrochloride (Glucagon)³ 0.1 mg/kg IM, maximum dose 1 mg. For <u>paramedics</u> administration of glucagon hydrochloride (Glucagon) should only be considered as an alternative to dextrose when two or more IV attempts have failed. 6. Recheck the blood glucose level. If level does not increase and/or mental status does not improve request ALS and/or transport the patient.

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PARAMEDIC

ADULT	PEDIATRIC (less than 60 kg)
<p>7. Administer 10% dextrose (D10W)⁴, 125 ml (12.5 grams of dextrose) slowly via IV infusion.</p> <p>8. If patient’s mental status does not adequately improve, reassess blood glucose and administer a second dose of 10% dextrose (D10W) 125 mL (12.5 grams), if necessary.</p> <p>9. IO route should be considered <u>only</u> if IV access is unobtainable and glucagon hydrochloride (Glucagon) is contraindicated.</p> <p>10. If level of consciousness and functioning returns to normal and the patient refuses or does not require transport, follow HEMT no-transport procedures.</p> <ul style="list-style-type: none"> • Provide patient education using the After Care brochure. • Before allowing no transport, ensure that the patient’s blood glucose level measures greater than 80 mg/dL, that food will be available and eaten, the patient has no other injury or illness, and a responsible person is available to the patient. • Patients that are hypoglycemic with no history of diabetes should be transported for evaluation and determination of cause (may be a sign of serious undiagnosed illness). <p>11. If the patient will be transported, continue to administer 10% dextrose (D10W) at a rate of 100 mL/hour via infusion pump.</p>	<p>7. Administer of 10% dextrose (D10W)⁴, 5 ml/kg (0.5 grams/kg) slowly via IV infusion. See Handtevy Pediatric Guidelines for administration amounts in milliliters.</p> <p>8. If patient’s mental status does not adequately improve, reassess blood glucose and consider additional doses of 10% dextrose (D10W), if necessary.</p> <p>9. IO route should be considered <u>only</u> if IV access is unobtainable and glucagon hydrochloride (Glucagon) is contraindicated.</p> <p>10. If level of consciousness and functioning returns to normal and the patient refuses or does not require transport, follow HEMT no-transport procedures.</p> <ul style="list-style-type: none"> • Provide patient education using the After Care brochure. • Before allowing no transport, ensure that the patient’s blood glucose level measures greater than 80 mg/dL, that food will be available and eaten, the patient has no other injury or illness, and a responsible person is available to the patient. • Patients that are hypoglycemic with no history of diabetes should be transported for evaluation and determination of cause (may be a sign of serious undiagnosed illness). <p>11. If the patient will be transported continue to administer 10% dextrose (D10W) at a rate of 2 mL/kg/hour via infusion pump.</p>

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DOCUMENTATION KEY POINTS

- Initial and subsequent blood glucose levels.
- Initial signs/symptoms indicating hypoglycemia, and subsequent changes.
- Pertinent information if the patient is not transported, including who the patient was left with, medical advice and information provided to the patient, and recommended actions.

NOTES

- ¹ **Suspect hypoglycemia** in any patient with altered level of consciousness, signs of a stroke, or unexplained seizures. Also, suspect blood sugar problems in any sick neonate and in children of any age with unexplained weakness or signs/symptoms of dehydration or infection.
- ² **Insulin pumps** may be secured in the patient's waistband, pocket, undergarments or sock. Patients who are sleeping may have placed the pump next to their bed, clipped it to their sheets, blanket, pillow, pajamas or stuffed toy, or have it secured on an armband or leg band. Ask the patient or their family for assistance in operating the pump, if possible. If the patient or their family is unable to assist, stop the infusion by withdrawing the device's insertion point at the skin. Use caution when using this method as it will result in an open needle once withdrawn. The type of insulin in a pump is short acting. Once the pump is turned off, a patient should go no longer than two hours without administration of insulin. Notify receiving facility that the patient was using an insulin pump.
- ³ **Glucagon hydrochloride (Glucagon)** may take up to 20 minutes to be effective and may not work in patients with depleted glucose stores.
- ⁴ **Dextrose for IV/IO administration of any concentration** is not to be administered orally.