

LOS ANGELES UNIFIED SCHOOL DISTRICT
Student Health and Human Services Division
District Nursing Services

GLUCAGON INJECTION: A MEDICAL EMERGENCY PROCEDURE

I. GENERAL GUIDELINES

A. PURPOSE

1. To rapidly raise the blood sugar level when a student is experiencing a severe episode of hypoglycemia.

B. GENERAL INFORMATION

1. Glucagon is a natural hormone produced in the pancreas and raises blood glucose levels.
2. Glucagon is a life-saving treatment that cannot cause harm to the student. There is no danger of overdose.
3. Glucagon stimulates the release of stored sugar (glycogen – a form of carbohydrate) in the liver that raises blood glucose levels.
4. Follow Health Care Provider Authorization for correct dose (Glucagon dosage is based on body weight).
5. Glucagon should be stored at room temperature.
6. Call 911 for severe hypoglycemia if Glucagon injection is not available.

C. PRECAUTIONS

1. Check medication authorization for correct dose.
2. Check medication expiration date
3. Do not prepare glucagon for injection until ready for use.
4. Discard any unused portion.

D. PERSONNEL

1. Licensed Nursing Provider or School Physician.
2. Designated and trained school personnel under direct or indirect supervision of the school nurse.

E. EQUIPMENT

1. Provided by Parent
 - a. Glucagon Emergency Kit
 - b. Lemon-lime soda (regular, non-diet)
 - c. Antiseptic wipes (e.g. Alcohol wipes)
2. Provided by School:
 - a. Disposable non-latex gloves
 - b. Sharps container
 - c. Plastic bag for disposal of waste

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II. PROCEDURE FOR GLUCAGON INJECTION

ESSENTIAL STEPS	KEY POINTS AND PRECAUTIONS
1. CALL PARAMEDICS – 911 and obtain a glucagon kit.	Designate someone to call paramedics. Do not leave student unattended.
2. Turn student on their side.	Prevent aspiration. Nausea and vomiting may occur as side effects of glucagon or extreme hypoglycemia.
3. Prepare glucagon for injection. a. Remove flip-off seal from vial of powdered glucagon. b. Remove cover from needle on syringe containing diluent (liquid contents) and insert needle through rubber seal. c. Inject all of diluent into vial of powdered glucagon. d. Swirl vial gently until powdered glucagon dissolves completely. e. Hold vial of prepared glucagon upside down and withdraw solution. f. Remove needle/syringe containing prescribed dose of glucagon from vial.	Do not give if medication has expired, discolored or does not dissolve completely. Do not remove plastic clip from syringe. The plastic clip will prevent the plunger from being pulled out of syringe. Hold vial upright. Prepared glucagon should not be used unless the solution is clear and of a water-like consistency. Keep tip of needle in the solution while withdrawing dose to help prevent air bubbles. If air bubbles do occur, remove air from syringe by tapping side of syringe and gently pushing up the plunger until a dribble of solution is created at tip of needle and no air bubbles remain in the syringe.
4. Administer glucagon injection. a. Cleanse injection site with alcohol wipe, if available. b. Insert needle straight (90 degree angle) into injection site and inject glucagon by pushing in plunger of syringe slowly. c. Withdraw needle gently. Massage injection site. d. Discard syringe and vial in sharps container.	If possible, put on gloves. The middle of the outer thigh is the preferred injection site. Do not pinch the skin. Hold syringe like a dart. Take care not to contaminate the needle or puncture yourself. DO NOT RECAP SYRINGE. Stay with the student and keep them on their side until they regain consciousness.
5. Recovery may take 10 to 20 minutes. if student becomes conscious and is able to swallow, give sips of fast acting sugar (regular lemon-lime soda)	Nausea and vomiting may occur. Juice may aggravate nausea. Effects of Glucagon on Blood Glucose can last 2 to 12 hours.
6. Notify parent and school nurse.	Parent must replace Glucagon Emergency Kit when child returns to school.

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II. PROCEDURE FOR GLUCAGON INJECTION, continued

ESSENTIAL STEPS	KEY POINTS AND PRECAUTIONS
7. Document glucagon emergency administration electronically. If not available, use Nursing Protocol Log indicating: <ol style="list-style-type: none"> a. Reason b. Time of glucagon administration c. Result d. Interventions taken 	School Nurse will record information regarding this incident on the student's health record. Site administrator initiates iStar report.

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Date



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REFERENCES:

American Diabetes Association. (n.d.). Legal Rights. Retrieved May 25, 2017 from <http://www.diabetes.org/living-with-diabetes/parents-and-kids/diabetes-care-at-school/legal-protections/>

American Diabetes Association. (2016, August 17). Federal Laws. Retrieved May 25, 2017 from <http://www.diabetes.org/living-with-diabetes/parents-and-kids/diabetes-care-at-school/legal-protections/rights-and-responsibilities.html>

American Diabetes Association. (2016, August 17). Americans with Disabilities Act. Retrieved May 25, 2017 from <http://www.diabetes.org/living-with-diabetes/parents-and-kids/diabetes-care-at-school/legal-protections/americans-with-disabilities.html>

American Diabetes Association. (2017, February 27). State Laws, Regulations and Policies for School Diabetes Care. Retrieved May 25, 2017 from <http://www.diabetes.org/living-with-diabetes/parents-and-kids/diabetes-care-at-school/legal-protections/state-laws-and-policies.html>

Porter, S. (2014) Supporting Students with Special Health Care Needs. Glucagon Administration. Baltimore: Paul H. Brookes Publishing Co., Inc.