

# University of Chicago Laboratory Schools Undesignated Glucagon Policy

## I. Purpose

The purpose of this policy is to establish guidelines and procedures governing the use of undesignated glucagon administered by school nurses at the University of Chicago Laboratory Schools. Undesignated glucagon means glucagon prescribed in the name of the University of Chicago Laboratory Schools.

## II. Policy

Per [Public Act 101-042](#), the University of Chicago Laboratory Schools may maintain a supply of glucagon in any secure location that is immediately accessible to the school nurse. The school nurse may administer undesignated glucagon if he or she is authorized to administer the undesignated glucagon through a student's diabetes care plan and if the student's prescribed glucagon is not available on-site or has expired.

## III. Training

School nurses shall be trained annually to recognize and respond to hypoglycemia. Prior to the administration of glucagon, school nurses will submit proof of completion of a training curriculum to the lead nurse. The lead nurse will maintain records relating to the training curriculum and the trained personnel.

### **The training will include, but is not limited to:**

1. how to recognize early symptoms of hypoglycemia and severe hypoglycemia;
2. how to respond to an emergency involving severe hypoglycemia;
3. glucagon dosage and administration;
4. the importance of calling 9-1-1 or, if 9-1-1 is not available, other local emergency medical services;
5. care for the individual after administration of glucagon;
6. a test demonstrating competency of the knowledge required to recognize severe hypoglycemia and administer a dose of glucagon.

### **Training will also include:**

1. where the glucagon is stored and how to access the drug;
2. the method by which the school nurse will be notified of an incident that could require the administration of glucagon; and



3. the process for administering the glucagon.

#### **IV. Procurement of Glucagon**

- a. The lead nurse will be responsible for the procurement of glucagon. The lead nurse shall prepare standing orders and update annually.
- b. The school nurse should have the following supplies:
  - i. Glucagon Emergency Kit for Low Blood Sugar: Glucagon for Injection, 1 mg per vial and Diluent for Glucagon, 1 mL syringe.
  - ii. Medical grade gloves
  - iii. Written instructions, including the student's diabetic care plan if available

#### **V. Storage**

1. Glucagon Emergency Kit for Low Blood Sugar will be clearly marked and stored in the exam rooms of the ESH (104) and Blaine (S112) Nurse Offices. It will not be accessible to students. The standing protocol for administering glucagon will be kept near the glucagon.
2. Glucagon will be stored in accordance with manufacturer's instructions: Store at controlled room temperature between 68 to 77 degrees Fahrenheit before mixing glucagon with diluent. Glucagon that has been mixed with diluent should be used immediately.
3. Inspection of the Glucagon Emergency Kit for Low Blood Sugar shall be conducted regularly, including tracking the expiration date found on the storage container.

#### **VI. Use**

Check for signs of hypoglycemia. Early signs of hypoglycemia can include:

- Sweating
- Dizziness
- Palpitation
- Tremor
- Hunger
- Restlessness
- Tingling in the hands, feet, lips, or tongue
- Lightheadedness
- Inability to concentrate
- Headache
- Drowsiness
- Sleep disturbances
- Anxiety
- Blurred vision
- Slurred speech
- Depressed mood
- Irritability
- Abnormal behavior
- Unsteady movement
- Personality changes

Signs of severe hypoglycemia can include:

- Disorientation
- Unconsciousness
- Seizures
- Death

The occurrence of early symptoms calls for prompt and, if necessary, repeated administration of some form of carbohydrate. The prompt treatment of mild hypoglycemia symptoms can prevent severe hypoglycemic reactions. If the individual does not improve or if the administration of carbohydrate is impossible, glucagon should be given and the school nurse should call 911.

**To prepare glucagon for injection:**

1. Remove the flip-off seal from the bottle of glucagon. Wipe rubber stopper on bottle with alcohol swab.
2. Remove the needle protector from the syringe, and inject the entire contents of the syringe into the bottle of glucagon. **DO NOT REMOVE THE PLASTIC CLIP FROM THE SYRINGE.** Remove the syringe from the bottle.
3. Swirl bottle gently until glucagon dissolves completely. **GLUCAGON SHOULD NOT BE USED UNLESS THE SOLUTION IS CLEAR AND OF A WATER-LIKE CONSISTENCY.**

**To inject glucagon: Use the same technique as for injecting insulin**

4. Using the same syringe, hold the bottle upside down and, making sure the needle tip remains in solution, gently withdraw all of the solution (1 mL mark on syringe) from the bottle. The plastic clip on the syringe will prevent the rubber stopper from being pulled out of the syringe; however, if the plastic plunger rod separates from the rubber stopper, simply reinsert the rod by turning it clockwise. **The usual adult dose is 1 mg. For children weighing less than 44 lb (20 kg), give ½ adult dose, 0.5 mg. For children, withdraw ½ of the solution from the bottle (0.5 mL mark on syringe).** DISCARD UNUSED PORTION.
5. Cleanse injection site on buttock, arm, or thigh with alcohol swab.
6. Insert the needle into the loose tissue under the cleansed injection site, and inject all (or ½ for children weighing less than 44 lb) of the glucagon solution. Apply light pressure at the injection site, and withdraw the needle. Press an alcohol swab against the injection site.



**After injection:**

7. Move the person on their side (recovery position) after giving glucagon.
8. Alert Lab Emergency Administration Group.
9. If applicable, notify the student's parent, guardian, or emergency contact.
10. FEED THE INDIVIDUAL AS SOON AS HE/SHE AWAKENS AND IS ABLE TO SWALLOW. Give a fast-acting source of sugar (such as a regular soft drink or fruit juice) and a long acting source of sugar (such as crackers and cheese or a meat sandwich).
11. If the individual does not awaken in 15 minutes, give another dose of glucagon.

**VII. FOLLOW-UP**

1. The school nurse will
  - a. Write an incident report
  - b. Debrief with Lab's Emergency Management Team
  
2. After administration of glucagon, the school nurse will:
  - a. Within 24 hours after the administration of glucagon, *if applicable*, the lead nurse will notify the health care professional who provided the prescription for the glucagon and its use.
  - b. The lead nurse will submit a report regarding the administration of glucagon electronically in a format prescribed by the Illinois General Assembly.

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