

Leamington Mennonite Home
Long Term Care

POLICY AND PROCEDURE

CATEGORY: Nursing	SUBJECT: Glucagon Administration & Reporting	SECTION: G
DATE: October 2001	Administrator: <u>J. M.</u>	POLICY: 4
REVISION DATES: September 2013, June 2020, February 2024	Director of Care: <u>Cheryl Allick</u>	

GLUCAGON ADMINISTRATION & REPORTING

POLICY:

The Registered Nurse shall follow the procedure for administration of Glucagon when caring for diabetic residents who have had a hypoglycemic episode.

HYPOGLYCEMIA (Insulin Shock)

Residents treated with insulin or oral hypoglycemic agents e.g. glyburide, may experience low blood glucose (Hypoglycemia). When blood glucose levels fall below 3 units mmol/L some residents exhibit symptoms of low blood glucose while others do not. The ability to sense low blood sugar can be influenced by the duration of diabetes and the rate at which the blood glucose falls, based on patient individuality.

Symptoms of Hypoglycemia can include:

- Hunger
- Light headedness
- Nervousness
- Confusion
- Anxiety
- Dizziness
- Weakness
- Drowsiness
- Sweatiness
- Shakiness
- Unconsciousness

Severe hypoglycemia can lead to loss of consciousness. The risk of hypoglycemia is high in some older adults on insulin or oral hypoglycemic agents, especially in those who are eating poorly and/or are unable to verbalize their symptoms. Therefore, it may not be appropriate to aim for tight blood sugar control. The blood sugar goal is often to achieve a state of wellbeing without symptoms such as excessive fatigue, thirst, and infections. However, excessive food intake often combined with other factors can lead to complications associated with elevated blood glucose levels. The challenge is to provide the individual and/or the caregivers with education and benefits of healthful eating and moderation, while still respecting the resident's

choices and quality of life. Registered staff are authorized to take glucometer reading to help assess the resident's condition as often as they feel necessary.

PROCEDURE:

1. Check the resident's glucometer / flash glucose monitoring system. If below 3 mmol/L, and the resident is **conscious**, **IMMEDIATELY** give one of the following to raise blood glucose quickly:
 - a. (provides 10 – 15 g carbohydrate)
 - b. 125 ml (½ c) any fruit juice sweetened or unsweetened.
 - c. 125 ml (½ c) regular soft drink. **DO NOT** use diet pop.
 - d. 10 ml (2 tsp) regular jam or honey.
 - e. 10 ml (2 tsp) sugar – dissolved in water.
 - f. If there is severe hypoglycemia with a glucometer/ flash glucose monitoring system is below 2.8 and patient is **not conscious give Glucagon 1 cc** as per individualized medical directive. Please follow the directions on the insert in the Glucagon kit for reconstitution and the technique for administering the injection or nasal inhaler.
2. Wait 10 minutes, if resident **regains Consciousness** repeat the oral interventions as listed. Notify physician immediately; **if on insulin, hold the insulin. Follow Physician's orders for situational management.**
3. Follow with meal or snack within 1 hour. Serve a snack of ½ of a sandwich OR cheese and crackers.
4. If symptoms persist and resident **DOES NOT regain Consciousness DO NOT REPEAT GLUCAGON! Send to ER.**
5. Residents on **oral hypoglycemics** – non-insulin dependent diabetics are at risk for several days as oral medications can remain in the system for 3 days. Check glucometer/ flash glucose monitoring system reading for 3 days **BID** to ensure blood sugars remain in an acceptable range.
6. Reg Staff **Must** notify the resident, the resident's POA/ SDM of the occurrence, staff's immediate action to manage this occurrence, the status of resident and ongoing plans to manage the resident's health status. And document this in the electronic documentation notes.
7. **Documentation Required:** the glucometer/ flash glucose monitoring system reading and resident condition, the immediate actions taken to assess the resident's condition and maintain the resident's health.
8. **If Glucagon is utilized, then a Glucagon Utilization Incident Form must be completed** and submitted to the Director of Nursing and Personal care (or delegate) that shift for review and follow up.
9. The Reg staff administrating the Glucagon must notify the Attending Physician/ Medical Director, Pharmacy, and Director of Nursing and Personal Care of the use of the Glucagon. This can be done via the incident report.

10. All incidents of severe hypoglycemia or unresponsive hypoglycemia are to be reviewed and analyzed by the multidisciplinary team; corrective action taken as necessary, and a written record is kept of everything required.
11. An Annual review of ALL written Glucagon used by an interdisciplinary team comprising of the Medical Director, The Administrator, The Director of Nursing and Personal Care, and Pharmacy Service must occur. An evaluation is to identify any changes necessary to improve the use of glucagon in the long-term care facility home in accordance evidence-based practices/prevaling practices. The Home will ensure that the changes identified in the annual evaluation are implemented. The Home shall ensure that a written record is kept of the results of the annual evaluation and any changes that were implemented.

Reporting Requirements: Reports to the Director

The Home will ensure that the Director, through the Critical Incident System, is informed of the following incidents no later than 1 business day after the occurrence of the use of Glucagon, followed by the written report under the subsection 3:

1. A resident who is administered glucagon results in the resident being taken to a hospital.
2. A resident who experiences severe hypoglycemia or unresponsive hypoglycemia which results in the resident being taken to a hospital. The Home after completing this report shall within 10 days of becoming aware of the glucagon use, or sooner if required by the Director, make a report in writing to the Director setting out the following with respect to the incident:
3. A description of the incident, including the type of incident, the area or location of the incident, the date and time of the incident and the events leading up to the incident.
4. A description of the individuals involved in the incident, including:
 - a. Names of any residents involved in the incident.
 - b. Names of any staff members or other persons who were present at or discovered the incident and
 - c. Names of staff members who responded or are responding to the incident.
5. Actions taken in response to the incident, including,
 - a. What care was given, or action was taken because of the incident, and by whom.
 - b. Whether a Physician or Registered Nurse in the Extended Class was contacted,
 - c. What other authorities were contacted about the incident, if any.
 - d. Whether a POA, family member, person of importance or Substitute Decision Maker was contacted and the name of such person or persons.
 - e. The outcome or status of the individual or individuals who were involved in the incident.
6. Analysis and Follow Up Action Plan:
 - a. The immediate actions that have been taken to prevent recurrence.
 - b. Long term actions planned to correct the situation and prevent recurrence.

The Home shall ensure that the Resident's POA, SDM or any other delegated person are promptly notified.

Glucagon Information

Class: Pancreatic hormone, insulin antagonist

Description: Glucagon is a protein secreted by the alpha cells of the pancreas. When released, it elevates blood glucose levels by increasing the breakdown of glycogen to glucose and inhibiting glycogen synthesis. In addition, glucagon exerts positive inotropic action on the heart and decreases renal vascular resistance. The drug is only effective in treating hypoglycemia if liver glycogen is available. Therefore, it may be ineffective in chronic hypoglycemia, starvation and adrenal insufficiency.

Onset: within 1 minute

Duration: 9 – 17 minutes

Indications: Altered level of consciousness where hypoglycemia is known or suspected. May be used as an inotropic agent in beta-blocker overdose.

Contraindications: Hypersensitivity (allergy to proteins)

Adverse Reactions: Tachycardia, Hypertension, Nausea & Vomiting

Drug Interactions: There are no significant drug interactions with other emergency medications.

How Supplied: Glucagon injectable must be reconstituted (with provided diluent) before administration. Dilute 1 unit. (1 mg) white powder in 1 ml of diluting solution (1 mg/ml) as found in the kit. Glucagon inhaler- 3mg to be given in one nostril.