

Hypoglycemia (Technician) Protocol

revised October 2008



Preamble

Prolonged hypoglycemia may result in serious neurologic complications and death. Glucose paste can be administered orally to correct hypoglycemia and prevent complications.

The use of oral dextrose is a treatment option for documented hypoglycemia available to the Technician trained in recognition of hypoglycemia and administration of oral glucose paste.

Requirements

1. Fully licensed Technician.
2. Certification in hypoglycemia protocol (Technician) by the Medical Director.
3. Certification in glucometer use by the Medical Director (if glucometer use is an option).

Indications

1. Signs and symptoms consistent with hypoglycemia.

and either

2. Patients with diabetes mellitus on insulin or oral hypoglycemic agents.

or

3. Documented hypoglycemia (glucose <4 mmol/l).

Drug Doses and Frequencies

1. oral glucose paste
 - patient age less than 10 years: 25 grams
 - patient age 10 years or greater: 50 grams

Procedure

1. Perform patient assessment and record vital signs.
2. Determine the patient's serum glucose by glucometry, if available and certified to do so.
3. Assess that patient meets criteria for this protocol.
4. If the patient has an altered level of consciousness and intact gag reflex, glucose paste is administered.
5. If the patient has an altered level of consciousness and no gag reflex, place the patient in the recovery position and administer glucose paste in the dependent cheek.
 - have suction ready in the event the patient regurgitates stomach contents
 - consideration: half the prescribed amount may be administered as an initial dose to patients with an altered level of consciousness or an absent gag; if there is no response, the second half may be administered after the initial half has been absorbed
6. If the patient is actively seizing, an ALS intercept should be requested.
 - initiation of an intravenous line and intravenous dextrose is the preferred treatment option in this circumstance
 - oral dextrose should not be administered to a seizing patient
 - if advanced level providers are not locally available, a regional protocol must be in place to respond to patients with hypoglycemia who are not candidates for oral glucose paste
7. If the patient is still symptomatic 5 minutes following oral glucose administration and indications for treatment persist, a second dose of oral dextrose can be administered.

Note:

- prompt and rapid transportation to hospital is indicated for any patient with refractory or persistent hypoglycemia

Documentation Requirements

The following information must be documented on the patient care report form:

1. Patient's presenting signs and symptoms, including vital signs, level of consciousness, and gag reflex.
2. Initial blood glucose measurement (if glucometer use is an option).
3. Indications for protocol use.
4. Dose, formulation, route of administration, and time of dose(s) for therapeutic agent(s) used.
5. Repeat assessment, vital signs, and blood glucose measurement (if an option), as indicated.
6. Changes from baseline, if any, that occur during transport.
7. Signature and license number of EMS personnel performing any transfer of function skills.

Certification Requirements

1. Attend in-depth lectures on hypoglycemia and diabetes mellitus.
2. Demonstrate an understanding of the pathophysiology of diabetes mellitus.
3. Demonstrate an understanding of the pharmacology and mechanism of action of oral glucose.
4. Demonstrate competency in use of a glucometer (if an option).
5. Pass a written examination.
6. Certification is by the Medical Director.

Recertification Requirements

1. Review class and recertification is done every 12 months.
2. A record will be kept to document all cases where this protocol is used.

Decertification

1. Decertification is at the discretion of the Medical Director or the Provincial Medical Director, Emergency Medical Services, Manitoba Health & Healthy Living.

Quality Assurance Requirements

1. Appropriate quality assurance policies must be in place. The Medical Director or designate must review all instances where this protocol is used. As a minimum, the following must be assessed:
 - i) appropriateness of implementation
 - ii) adherence to protocol
 - iii) any deviation from the protocol
 - iv) corrective measures taken, if indicated
2. Yearly statistics for protocol use compiled and forwarded to Emergency Medical Services, Manitoba Health & Healthy Living.