

GLUCAGON HYDROCHLORIDE (GLUCAGON)

Drug Classification: Hormone, antihypoglycemic

BACKGROUND

Pharmacodynamics

This medication is a natural hormone produced in the pancreas. When released it causes a breakdown of stored glycogen to glucose and inhibits the synthesis of glycogen from glucose. Both actions increase the blood levels of glucose. Onset of 5 to 20 minutes, with peak effects in 30 minutes.

In beta-blocker overdose, this medication helps to increase heart rate and contractility. It also improves conduction from the atria to the ventricles.

Indications

- Hypoglycemia in diabetic patients when IV access is not available.
- Reversal of beta-blocker overdose.

Contraindications

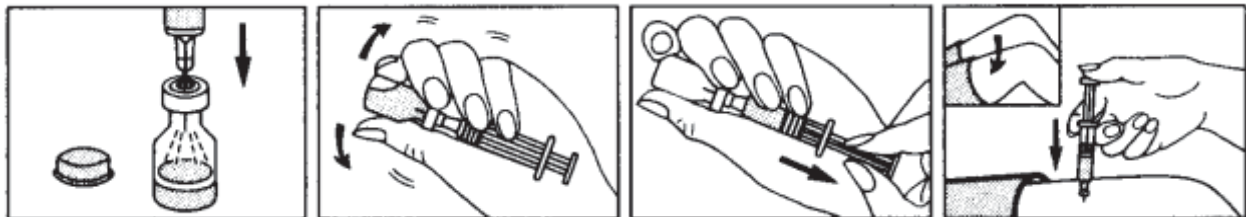
- Allergy or known hypersensitivity to glucagon.

Cautions

- Glucagon is only effective for hypoglycemia if there are glycogen stores in the liver.

DOSAGE and ADMINISTRATION

1. Once a patient has been determined to be hypoglycemic, EMT level providers may administer a patient’s prescribed emergency glucagon kit.
2. Prior to administration, this medication must be reconstituted using the steps below:



ADULT	PEDIATRICS (less than 60 kg)
<p><u>For hypoglycemia</u></p> <ol style="list-style-type: none"> 1. Administer 1 mg IM after reconstitution. May repeat after 10 minutes, if needed 	<p><u>For hypoglycemia</u></p> <ol style="list-style-type: none"> 1. Administer 0.1 mg/kg IM up to 1 mg after reconstitution. May repeat in 20 minutes, if needed.

HEALTHEAST MEDICAL TRANSPORTATION
MEDICAL OPERATIONS MANUAL

ADULT	PEDIATRICS (less than 60 kg)
<p><u>For beta-blocker overdose</u>¹</p> <p>1. Administer 4 mg IV/IO every 10-15 minutes if the patient displays hypotension, heart block, widened QRS, symptomatic bradycardia.</p>	<p><u>For beta-blocker overdose</u>¹</p> <p>1. Administer 0.1 mg/kg IV/IO every 10-15 minutes if the patient displays hypotension, heart block, widened QRS, or symptomatic bradycardia.</p>

ADVERSE REACTIONS/SIDE EFFECTS

- Occasional nausea and vomiting.

NOTES

¹ For beta-blocker overdose, the dosage of glucagon needed will likely exceed the amount available. Consider calling for a supervisor or another ambulance so additional doses may be obtained prior to transport. Do not delay transport to secure additional doses of glucagon. Administer what you have and transport expeditiously. Also consider early notification of the receiving hospital to allow them enough time to obtain a sufficient amount of the medication prior to patient arrival.

REFERENCE GUIDELINE:

3G Hypoglycemia

3K Overdose