



Jackson Hole Fire/EMS Operations Manual

Approved by: Will Smith, MD, Medical Director

Approved by: Rusty Palmer, Chief

Approved by: Emergency Services Council

Title: **Medication Protocol:
Glucagon**

Division: 17
Article: 1.16
Revised: Dec-07
Pages: 2

GLUCAGON (Medication Protocol)

EMT-INTERMEDIATE PROVIDERS

IT IS UNDERSTOOD THAT THIS MEDICATION MAY BE ADMINISTERED ONLY AFTER VOICE AUTHORIZATION HAS BEEN GRANTED EITHER BY A WYOMING LICENSED PHYSICIAN OR A PHYSICIAN SUPPORT PERSON (PA) ACTING AS THE AGENT OF A WYOMING LICENSED PHYSICIAN, OR BY A WYOMING LICENSED REGISTERED NURSE; RELAYING THE AUTHORIZATION FROM A WYOMING LICENSED PHYSICIAN WITH WHOM THE NURSE HAS DIRECT COMMUNICATIONS VIA RADIO OR TELEPHONE.

PARAMEDIC PROVIDERS

NO VOICE ORDER REQUIRED

CLASS: Pancreatic hormone, insulin antagonist

**PHARACOLOGY/
ACTIONS:** Glucagon is a protein secreted by the alpha cells of the pancreas. It increases blood glucose by converting glycogen in the liver into glucose. Glucagon also has positive inotropic action on the heart and decreases renal vascular resistance which makes it useful in beta-blocker and calcium channel blocker overdose.

ONSET/DURATION: Onset: 1 min Duration: 60-90 min

**USE IN FIELD/
INDICATIONS:** Persistent hypoglycemia despite glucose supplementation. Calcium channel blocker or beta-blocker toxicity

CONTRAINDICATIONS: Hypersensitivity (allergy to proteins)

SIDE EFFECTS: Tachycardia, hypotension, nausea and vomiting, urticaria

DRUG INTERACTIONS: Effect of anticoagulants may be increased if given with glucagons. Do not mix with saline.

HOW SUPPLIED: Glucagon must be reconstituted (with provided diluent) before administration. Dilute 1 unit (1mg) white powder in 1 mL of diluting solution. (1 mg/ml)

ROUTE: IM, IV, IO

DOSAGE:	ADULT	PEDIATRIC
	<u>Hypoglycemia:</u> 1 mg IM; may repeat in 7-10 min <u>CCB or β-Blocker toxicity:</u> 2 mg IV initially, may require higher doses	<u>Hypoglycemia:</u> 0.5 – 1 mg IM <u>CCB or β-Blocker toxicity:</u> Safety and efficacy have not been established

PREGNANCY SAFETY: Category B – unproven or unknown risk to fetus, and no risk in later trimesters

COMMENTS: Glucagon should not be considered a first-line choice for hypoglycemia. IV glucose will need to be administered if the patient does not respond to a second dose of glucagon.