

Glucagon

Indications: Hypoglycemia or Beta-blocker overdose

Contraindications: None in the emergency setting

Concentration: 1 mg/mL

ADULT DOSING

Indication	Dose	Rate & Route	Note
Hypoglycemia	1 mg 1 mL	IM	
Beta-blocker overdose	4 mg 4 mL	IV/IO	

ADULT DOSING

PEDIATRIC DOSING

Indication	Dose	Rate & Route	Note
Hypoglycemia	0.1 mg/kg Max dose: 1 mg	IM	
Beta-blocker overdose		IV/IO	

PEDIATRIC DOSING

Pediatric Dosing Glucagon

3 kgs	4kgs	5 kgs	6-7 kgs	8-9 kgs	10-11 kgs	12-14 kgs	15-18 kgs	19-23 kgs	24-29 kgs	30-36 kgs
6.6 lbs	8.8 lbs	11 lbs	13-15 lbs	17-20 lbs	22-24 lbs	26-30 lbs	33-40 lbs	42-50 lbs	53-64 lbs	66-80 lbs
in18.25-20.25	in20.25-21.5	in21.5-23.25	in23.25-26.25	in26.25-29.25	in29.25-33	in33-37.5	in37.5-42.5	in42.5-47.75	in47.75-51.25	in51.25-56.25

Glucagon
Concentration = 1 mg/ml

0.3 mL	0.4 mL	0.5 mL	0.7 mL	0.9 mL	1.0 mL	1.0 mL	1.0 mL	1.0 mL	1.0 mL	1.0 mL
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Precautions

Glucagon for Hypoglycemia is only effective if there are sufficient stores of glycogen in the liver.
Pregnancy Category B

Adverse/Side Effects

Hypotension, dizziness, headache, nausea, vomiting.

Class

Hormone secreted by the alpha cells of the pancreas

Mechanism of Action

Glucagon causes a breakdown of stored glycogen to glucose, and inhibits the synthesis of glycogen from glucose. Glucagon exerts a positive inotropic action on the heart and decreases renal vascular resistance.

Onset of Action

Minutes (IV)

10 minutes (IM)

Peak Effect

5 – 20 minutes (IV)

~ 30 minutes (IM)

Duration of Action

60 to 90 minutes (IV)

> 90 minutes (IM)