Glucagon

McHenry Western Lake County EMS

Objectives

- During this session we will discuss:
- Class
- Actions
- Indications
- Contraindications
- Dosing/Routes
- How supplied
- Side effects

Class:

- Polypeptide hormone
- Identical to human glucagon that increases blood glucose and relaxes smooth muscle of the gastrointestinal tract

Actions:

- Increases blood glucose by converting liver glycogen stores to glucose
- Stimulates the release of catecholemines causing increased heart rate and contractility.
- Peaks in <30 minutes

Indications:

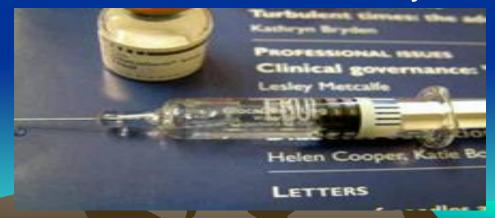
- Hypoglycemia w/o IV
- Anaphylaxis if a Hx of CVD, HTN, pregnant or on beta blockers and not responding to Epi. and Dopamine.
- Symptomatic bradycardia with a pulse if on beta/calcium and unresponsive to Atropine and pacing.
- Beta/Calcium blocker OD if P<60 and BP<90 and not responding to Atropine or pacing.

Dosing/Routes:

- Anaphylaxis: 1mg IVP/IN/IO/IM.
- Symptomatic Baradycardia: 1mg IVP/IN/IO/IM.
- Beta/Calcium blocker OD: 1mg IVP/IN/IO/IM
- Hypoglycemia w/o IV: 1mg IM/IN
- Beta/Calcium blocker OD and NOT responding to Epi, atropine or pacing: 1 mg IVP/IM/IN/IO

How supplied:

- 1 mg vial
- Must be mixed and remember.....
- DO NOT SHAKE!
- Roll the medication back in forth in your hands.



Contraindications:

- Chronic Hypoglycemia
- Adrenal insufficiency
- Adrenal tumor
- Will not be effective in treating hypoglycemia if no glycogen stores: peds, liver disease, starvation.
- Hypersensitivity

Side effects/adverse reactions:

- Increased heart rate
- Allergic reaction (protein)
- Nausea and vomitting
- Dyspnea

 ref: MWLCEMS Protocol and 2000 Mosby's Nursing Drug Reference Book and RX list.com

Case Study

 You are treating a hypoglycemic 52 male who you are unable to gain IV access on.
What would be the dose and route of Glucagon for this patient.

Answer

• 1mg IM/IN/IO

Question?

 If you are to give 1mg of Glucagon IN, can you give the entire 1 mg into just one nostril?

Answer

 Yes...Glucagon is 1mg in 1ml and we can give a total of 1ml per nostril.