Glucagon is a hormone secreted by the pancreas. It causes stored glycogen to be released into the bloodstream as glucose. It also inhibits the synthesis of glycogen from glucose so the glucose stays available in the bloodstream. Both of these actions increase the availability of glucose to the cells needing an energy boost. Since it is given intramuscularly, it is a useful drug in hypoglycemia when IV access is difficult or unsuccessful, as in a renal dialysis patient.

Indications and Administration:

1. Measured blood sugar <70 with altered mental status and IV/IO not obtainable.
   a. **Adult –** 1.0 mg or 1.0 unit IM or SQ or 2 mg atomized.
   b. **Pediatric -** 0.1 mg/kg to maximum of 1.0 mg IM or SQ or 1 mg atomized.
2. To reverse the effects of beta-blocker overdose.
   a. **Adult or Pediatric** – 2mg IV. If more glucagon becomes available, consult medical control for additional doses.

Notes:

1. While return to consciousness is relatively quick with IV Dextrose, the return to consciousness following Glucagon administration usually takes 5-20 minutes.
2. Although rare, may cause generalized allergic hives.
3. Glucagon will not be effective if liver glycogen is depleted so liver disease and malnourished pts may not respond to glucagon.
4. May cause nausea and/or vomiting.
5. As soon as patient arouses, recheck BGL and give oral glucose if needed.