Pharmacologic Class:
- A pancreatic hormone-insulin antagonist that increases blood glucose and relaxes smooth muscle of the gastrointestinal tract.

Indications:
- Altered LOC with hypoglycemia and an IV is not quickly available
- Beta blocker overdose
- Calcium channel blocker overdose

Contraindications:
- Hypersensitivity

Method of Action:
- Glucagon increases blood glucose levels through glycogenolysis, which is the process of converting liver glycogen stores to glucose.
- Glucagon is a cardiac stimulant independent of the beta adrenergic system via increased cAMP.

Dosing:

<table>
<thead>
<tr>
<th>Adults</th>
<th>Pediatric</th>
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<tbody>
<tr>
<td>Hypoglycemia: 1mg IM</td>
<td>0.5 mg IM/SQ</td>
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<tr>
<td>o May repeat x 1 q 20 minutes</td>
<td>o May repeat in 20 minutes</td>
</tr>
<tr>
<td>Beta-blocker and/or Ca-Channel Blocker overdose</td>
<td></td>
</tr>
<tr>
<td>o 1mg IV/IM</td>
<td></td>
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<tr>
<td>o May repeat if available</td>
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</tbody>
</table>

Pharmacokinetics:
- Time of Onset IM: 5-20 minutes
- Peak Effect IM: 13-30 minutes

Side Effects:
- Tachycardia
- Hypertension
- Nausea/Vomiting
- Allergic reaction

Critical Points:
- Effective only if sufficient liver glycogen is present
- Beta-blocker or Ca-Channel Blocker may require higher doses. Titrate to desired hemodynamic effect.