Medication: Glucagon	PDN: 6937.01	Last Updated: July 2 2024	PMD: Andrew Travers*	PDC: Teena Robinson*	

GLUCAGON (nasal powder)

1.0 Classification

- Antihypoglycemic

2.0 Mechanism of Action

- Activates hepatic glucagon receptors, thereby stimulating glycogen breakdown and release of glucose from the liver.

3.0 Indications

- Patients with signs of hypoglycemia and a blood glucose level less than 4.0 mmol/L who are unable to take oral glucose and an IV cannot be established.

4.0 Contraindications

- Known hypersensitivity
- Pheochromocytoma
- Insulinoma

5.0 Precautions

- Patients taking beta-blockers may have a greater increase in both heart rate and blood pressure when given glucagon, but this will be temporary.
- Glucagon may lose its ability to increase blood glucose or may cause hypoglycemia if administered with indomethacin.
- Intravenous administration of dextrose is preferred for patients taking sulfonylureas as the pharmacological effects of sulfonylureas can last a long time.

6.0 Route

- May be given IN

7.0 Dosage

All ages

- 3 mg IN (BAQSIMI® product only), administered into one nostril (no repeat dose)
  - Remove the shrink wrap by pulling on the red strip
  - Open the lid and remove the device from the tube
  - Hold the device between fingers and thumb
  - Insert the tip gently into one of the nostrils until fingers touch the outside of the nose
  - Push the plunger all the way in until the green line is no longer showing

8.0 Supplied

- 3 mg glucagon (powder) and intranasal device

9.0 May Be Given By

- PCP/ICP/ACP/CCP

10.0 Adverse Effects

- Nausea/vomiting
- Headache
- Upper respiratory tract irritation
    - rhinorrhea, nasal discomfort, nasal congestion, cough, epistaxis, oropharyngeal pain
- Allergic reaction

11.0 Special Notes

- Hypoglycemia for non-diabetic children is different.
    - Neonate < 2.5 mmol/L
    - Infant/Pediatric < 3.3 mmol/L
- Keep the glucagon powder in the shrink-wrapped tube until ready for use.
- Supplementary carbohydrate should be given as soon as possible.
- Glucagon is very unlikely to work in a non-diabetic because the hypoglycaemia is a result of depleted glucose stores, rather than too much insulin.
- Consider consulting the Atlantic Canada Poison Centre in the setting of suspected overdose.
- Though glucagon can be used as an antidote for beta-blocker overdose, it requires high doses which are most often unavailable in the pre-hospital setting.
- Pregnancy category B [if there is a clinical need for it, Category B drugs are considered safe to use]

12.0 References

- Altered Level of Consciousness Clinical Practice Guideline
- BAQSIMI® Product Monograph

*Electronically Signed