

PRESENTATION

Glucagon injection, 1 milligram of powder in vial for reconstitution with water for injections.

ACTIONS

Glucagon is a hormone that induces conversion of glycogen to glucose in the liver, thereby raising the blood glucose level.

ADDITIONAL INFORMATION

Generally the choice between the use of oral glucose gel, glucagon IM or glucose 10% IV as first line treatment of hypoglycaemia will be a clinical decision made by the Paramedic taking into account all of the available information.

Glucagon should not be given by IV injection because of increased vomiting associated with IV use. Check blood glucose 5–10 minutes after administration to ensure it has improved to >5.0 millimoles per litre.

Glucagon may be relatively ineffective in those who have already used up their body stores of glycogen (in particular hypoglycaemic children who are not diabetics). Oral glucose gel smeared round the mouth or glucose 10% is preferable as first line treatment in such patients where IV access is obtainable.

Alcohol-induced hypoglycaemia may render glucagon ineffective, however a hypoglycaemic patient who is intoxicated may not fall into this category.

Hypoglycaemic patients who fit should **preferably** be given Glucose 10% IV.

DOSAGE AND ADMINISTRATION

Route: IM antero-lateral aspect of thigh or upper arm

Concentration – 1 milligram per vial.

AGE	DOSE	VOLUME
Adult	1 milligram	1 vial
Over 25kg (8-years)	1 milligram	1 vial
Below 25kg	500 micrograms	0.5 vial
Birth	100 micrograms	0.1 vial

INDICATIONS

Hypoglycaemia, especially in known diabetics, where blood glucose level <4.0 millimoles per litre or if hypoglycaemia is clinically suspected **and** where oral glucose administration is not possible.

The unconscious patient where hypoglycaemia may be a possible cause.

RELATIVE CONTRA-INDICATION

Low glycogen stores (e.g. recent use of glucagon).

SIDE EFFECTS

Nausea, vomiting.

Diarrhoea.

Rarely, acute hypersensitivity reaction.

Hypokalaemia.

CAUTIONS

If patient is likely to require thrombolysis then intramuscular administration of any drug should be avoided.