

PRESENTATION

Packs containing 500ml of 10% glucose solution (50 grams).

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.

ACTIONS

Reversal of hypoglycaemia.

ADDITIONAL INFORMATION

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

DOSAGE AND ADMINISTRATION

Route: IV

Concentration – 50 grams in 500ml.

AGE	DOSE	VOLUME
Adult	10 grams	100.0ml
11 years	10 grams	100.0ml
10 years	10 grams	100.0ml
9 years	10 grams	100.0ml
8 years	10 grams	100.0ml
7 years	10 grams	100.0ml
6 years	10 grams	100.0ml
5 years	9.3 grams	93.0ml
4 years	8.2 grams	82.0ml
3 years	7.2 grams	72.0ml
2 years	6.1 grams	61.0ml
18 months	5.6 grams	56.0ml
12 months	4.9 grams	49.0ml
9 months	4.5 grams	45.0ml
6 months	3.9 grams	39.0ml
3 months	3.0 grams	30.0ml
1 month	2.2 grams	22.0ml
Birth	1.8 grams	18.0ml

Adults

It is appropriate to cannulate with the largest bore cannula that can confidently be placed and its position in the vein confirmed by a 10-20ml flush of sodium chloride 0.9%. The glucose solution should be administered by IV infusion approximately 100ml (10 grams glucose) at a time.

The dose may be repeated after 5 minutes if there is no response.

If the patient has shown a PARTIAL response then further infusion may be necessary, titrated to response, up to a maximum of 300ml (30 grams) to restore a normal GCS. If after the second dose there has been NO response, rapid transport should be initiated and the hospital pre-alerted. Consideration should be given to alternative diagnoses or the likelihood of a third dose en route benefiting the patient.

Children <40kg

When administering glucose 10% to children a single dose of 5ml/kg is recommended. In larger children this may equate to a volume in excess of 100ml, in which case the adult protocol should be followed.