GlucosePro
Oral Glucose Tolerance Testing

- Ready to use glucose drink
- Adheres to WHO guidelines
- Pleasant flavour
- Widely used in the UK market

Now available on NHS Supply Chain

Includes:

* **GLUCOSEPRO**, glucose drink 250 ml including 75 anhydrous glucose as per WHO recommendation
* **Package**: PET bottle package 250 ml – fully recyclable as plastic or energy waste
* **Ingredients**: Water, glucose monohydrate, acidity regulator (citric acid), flavour (raspberry), preservative (potassium sorbate)

Ingredient amount in recipe:

184,86 g Water / 82,5 g Glucose / 0,40 g Citric Acid / 0,11 g Potassium Sorbate / 0,13 g Raspberry Aroma

Nutritional values/100 g:

Energy 475 kJ (112 kcal) / Protein 0 g / Carbohydrates 28 g / of which glucose 28 g / Fat 0 g / Fibre 0 g / Natrium 0 g

Pasteurisation: 85 °C - 5 minutes

Measurement values: pH 3,2 +- 0,1; Brix: 28 +-1

Microbiological values: Total bacteria: <1000 pmy/g; Yeast: <50 pmy/g; Mold: <50pmy/g

Marking: Best before – date and batch number 24 months from production. Shake before use.

Storage: In room temperature or refrigerated. When opened to be consumed within same day.

Meets all WHO requirements for oral glucose tolerance test.

Contraindications: Allergy towards any ingredient – note that the raspberry flavour is synthetic so it will not cause any nickel allergies – the source of the Glucose is corn.

Glucose test, oral, short (0, 2 h) Pt-Gluk-R (or as per the hospital/laboratory protocol)

Indications:

GlucosePro is a primary method for testing for Diabetes Mellitus, Impaired Glucose Tolerance (IGT) and Impaired Fasting Glucose (IFG) - diagnostics. This product is safe to use in pregnancy and with breast feeding mothers.

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Preparation:
The patient should fast for 12 hours before the test (the tolerance allowed is between 10 and 14 hours). Fasting should start the previous evening at 8 PM. The test should be conducted in the morning between 7-9 AM. During fasting patients are allowed to drink a moderate amount of water. After the intake of GlucosePro, drinking water is permitted. The patient should follow their normal carbohydrate diet during the three days preceding the test. Physical exercise should be avoided immediately before the test. Taking any non-essential medication should be avoided. Smoking is prohibited during the test.

Performance of test:
Adults: Before the test the glucose level is measured with a glucose meter (P -Gluk-O). If the fasting glucose level is over 8.0 mmol/l for outpatients, or over 10.0 mmol/l for inpatients, the test should not be done. After measuring the glucose level, the patient should drink the GlucosePro.

The plasma glucose samples (P -Gluk) should be taken after 0 and 2 hours.

Children: Before the test the child's base glucose level is measured with a glucose meter (P-Gluk-O). After measuring the base glucose level, the child should drink GlucosePro at a rate of 1.75g/weight kg, regardless of the age of the child, up to a maximum amount of 75g of glucose. The plasma glucose readings (P-Gluk) are taken after 0 hours and 2 hours. Urine samples can be collected, if requested.

After drinking GlucosePro some patients may become nauseous due to the high glucose content and may vomit. In this case the test must be aborted. After that, the patient can be given food.

The test can also be used for insulin secretion measurement. The serum insulin level can be measured, along with the glucose level. Also, Impaired Glucose Tolerance (IGT) is indicated where the glucose test result differs from a normal result.

Sample:
Adults: 2 ml of blood into a fluoride citrate tube or fluoride oxalate tube.

Children: 2 ml of blood into a fluoride citrate tube or fluoride oxalate tube. For children the sample intake can be done as a skin ejection sample into a Li-heparin gel tube (microtube). The sample tubes must be cold stored after sampling and samples must be centrifuged within 2 hours at the latest.

Method Interpretation:
The glucose level is determined by the hexokinase method. Interpretation Plasma sample or serum sample (P-Gluk, S-Gluk). Unit mmol/l.

Venous sample	0-sample (fasting)	2 h sample
Adults, normal glucose tolerance	below 6.1	below 7.8
Children, normal glucose tolerance	below 7.2	below 7.8
Impaired Fasting Glucose (adult, IFG)	6.1 - 6.9	below 7.8
Impaired Glucose Tolerance (adult, IGT)	below 7.0	7.8 - 11.0
Diabetes mellitus	>= 7.0	>= 11.1

In Diabetes Mellitus, and also in the Impaired forms, tissue glucose utilisation is impaired. This can be detected by the higher than normal increase in plasma glucose levels after the intake of GlucosePro:

* In the case of Impaired Fasting Glucose(IFG) the fasting glucose levels are higher than normal but the glucose test
  result is normal (see table)
* In the case of Impaired Glucose Tolerance (IGT) both the fasting glucose level and glucose test result are higher than normal (see table)
* In the case of Diabetes Mellitus, both the fasting glucose level and the glucose test results are the highest of all (see table)

Glucose levels in the urine during the test can be used to detect possible renal glucosuria.

Remarks:
The reference value is according to WHO recommendation 1999.