

Glucose 40%

Newborn use only

2019

Alert	40% glucose, on average, raises blood glucose by 0.4 mmol/L (95% CI -0.14–0.14) ² and should not be used alone in the treatment of moderate to severe hypoglycaemia. This can be a nurse initiated medication according to the local hospital guideline. DO NOT squirt gel directly into the baby's mouth to avoid choking.
Indication	Prevention and treatment of mild hypoglycaemia in neonates ≥35 weeks' gestation and <48 hours of life ^{1,2}
Action	Glucose gel contains glucose, a simple carbohydrate, in concentrated aqueous solution, which can be administered by direct application to mucosal surfaces of the mouth, including buccal and lingual surfaces. Absorption from these sites may allow rapid access to the circulation. Some proportion of the dose may be swallowed and absorbed from the gastrointestinal tract. ²
Drug Type	Glucose 40%.
Trade Name	Dextrose 40% Oral Gel syringe (Biomed, New Zealand) Glucose 40% Oral Gel (Glucose15)
Presentation	ORAL Dextrose 40% Gel syringe (Biomed, New Zealand): Each 2.5 mL syringe contains Glucose (1 g), methyl hydroxybenzoate (2.25 mg), propyl hydroxybenzoate (0.25 mg) and ethanol (5% v/v). Glucose15 Oral Glucose Gel: 15 g of glucose / 37.5 g tube. 200 mg of glucose gel 40% is equivalent to 0.5 mL. Lemon flavoured. Contains citric acid monohydrate, water, dextrose, glycerin, methylparaben, potassium sorbate, propylparaben, carboxymethylcellulose, sodium citrate. 40% glucose in Water for Injection: Supplied in 2 mL oral syringe by Baxter (glucose syringe product GLR.082).
Dosage/Interval	0.5 mL/kg/dose (200 mg/kg/dose). ³ Doses can be repeated as per the local hospital guidelines. 1 mL/kg/dose (400 mg/kg/dose) as a single dose has also been used. ⁵
Route	ORAL
Maximum Daily Dose	1.5 mL/kg
Preparation/Dilution	
Administration	This can be a nurse initiated medication according to the local hospital guideline. Dextrose 40% Gel: <ol style="list-style-type: none">1. Wearing a clean glove, gently dry the infant's buccal mucosa with gauze. NOTE: If using tube, draw up required dose of gel slowly in an oral-only 5 mL syringe.2. Dispense one-half of the dose from oral syringe onto gloved finger3. Massage into the buccal mucosa of one cheek. DO NOT SQUIRT DIRECTLY INTO BABY'S MOUTH.4. Repeat with remaining half-dose inside the other cheek.5. Large doses may be divided into 4 equal amounts and given alternating between cheeks.6. Commence breastfeeding or administer expressed breast milk or formula.7. Discard the unused portion of the gel. Glucose 40% solution (Baxter) <ol style="list-style-type: none">1. Wearing a clean glove, gently dry the infant's buccal mucosa with gauze.2. Instil the prescribed dose slowly into the side of the mouth onto the buccal mucosa and massage it in with a gloved finger.⁶ DO NOT SQUIRT DIRECTLY INTO BABY'S MOUTH.3. Commence breastfeeding or administer expressed breast milk or formula.4. Discard the unused portion.
Monitoring	Measure blood glucose 30 minutes after administration and subsequent management is as per the hospital guideline.
Contraindications	No information.
Precautions	<35 weeks gestation; infants at risk of aspiration or in whom feeds are contraindicated.
Drug Interactions	No information.

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Adverse Reactions	Risk of aspiration if the gel is squirted directly into mouth.
Compatibility	No information.
Incompatibility	No information.
Stability	Glucose15 Gel: 12-month shelf life. Check the expiry date prior to administration. Dextrose 40% Gel 2.5 mL syringe:
Storage	Glucose15 Gel: In room temperature. Dextrose 40% Gel syringe (Biomed): 2-8°C (refrigerate).
Special Comments	40% glucose, on average raises blood glucose level by 0.4 mmol/L (95% CI -0.14–0.14). ²
Evidence summary	Refer to full version.
References	Refer to full version.

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Authors Contribution

Original author/s	Srinivas Bolisetty
Author/s of the current version	Srinivas Bolisetty
Evidence Review	David Osborn
Nursing Review	Eszter Jozsa
Pharmacy Review	Jing Xiao, Cindy Chen, Carmen Burman, Michelle Jenkins
ANMF Group contributors	Nilkant Phad, Himanshu Popat, James Marceau
Final content and editing review of the original	Ian Whyte
Electronic version	Cindy Chen, Ian Callander
Facilitator	Srinivas Bolisetty