

# Glucose Gel

## Glucose gel 40% (Glucose15<sup>®</sup> 15g/37.5g)

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**Note:**

This guideline provides advice of a general nature. This statewide guideline has been prepared to promote and facilitate standardisation and consistency of practice, using a multidisciplinary approach. The guideline is based on a review of published evidence and expert opinion.

Information in this statewide guideline is current at the time of publication.

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Health practitioners in the South Australian public health sector are expected to review specific details of each patient and professionally assess the applicability of the relevant guideline to that clinical situation.

If for good clinical reasons, a decision is made to depart from the guideline, the responsible clinician must document in the patient's medical record, the decision made, by whom, and detailed reasons for the departure from the guideline.

This statewide guideline does not address all the elements of clinical practice and assumes that the individual clinicians are responsible for discussing care with consumers in an environment that is culturally appropriate and which enables respectful confidential discussion. This includes:

- The use of interpreter services where necessary,
- Advising consumers of their choice and ensuring informed consent is obtained,
- Providing care within scope of practice, meeting all legislative requirements and maintaining standards of professional conduct, and
- Documenting all care in accordance with mandatory and local requirements

### Synonyms

Dextrose, d-Glucose

### Dose and Indications

#### For Acute Management of Neonatal Hypoglycaemia

Inclusion criteria:

- > Plasma glucose level (PGL) between 1.5 and 2 mmol/L **and**
- > Asymptomatic of hypoglycaemia **and**
- > ≥ 35 weeks gestation **and**
- > < 48 hours of age **and**
- > Physiologically stable

#### Buccal

0.5mL/kg/dose



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### Preparation and Administration

#### Buccal

**Glucose 15<sup>®</sup> contains 15g glucose in 37.5g tube, this results in 40% glucose.**

**Do not squirt the gel directly into neonate's mouth or down a nasogastric tube. Always rub into the buccal mucosa.**

- > Draw up the prescribed amount of gel into a 3mL enteral feeding syringe using a drawing up straw. Remove all air bubbles to ensure accurate measurement of the medication. Label the syringe with a green oral medication label.
- > Apply to infant's buccal mucosa following drying with sterile gauze. Massage into mucosa with a gloved hand.
- > Offer breastfeed or formula if the baby is being formula fed.
- > Seal the tube with a purple syringe cap and place in the fridge for further dose if required. Can be stored in a refrigerator for 48 hours after opening.
- > Use one tube per neonate.

### Adverse Effects

#### Rare

Hyperglycaemia

### Monitoring

- > Check PGL 30 - 60 mins after the administration of the glucose gel 40%
- > If repeat PGL is 1.5 - 2.5mmol/L inform the NNP/MO. They may prescribe a second dose of glucose gel 40% if the neonate is not symptomatic
- > Therapeutic goal: PGL >2.5mmol/L
- > If the PGL is <2.6mmol/L or the neonate is symptomatic following the second dose, seek advice from a neonatal consultant

### Practice Points

- > If at any point, the neonate is symptomatic of hypoglycaemia or PGL is less than 1.5mmol/L, contact medical staff
- > If needing more than two doses, consult a neonatal consultant
- > Up to six doses may be given in 48 hours
- > A tube of oral glucose contains 37.5g of glucose 40% gel, a single tube will only ever be required
- > If PGL <1.5mmol/L at any time and no major illness, buccal glucose gel 40% may be given while preparing to administer IV glucose. Refer to [South Australian Perinatal Practice Guideline: Neonatal Hypoglycaemia](#) or local guideline



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### References

- > Harris DL, Weston PJ, Signal M, Chase JG, Harding JE. Dextrose gel for neonatal hypoglycaemia (the Sugar Babies Study): a randomised, double-blind, placebo-controlled trial. *The Lancet*. 2013 Dec 21;382(9910):2077-83.
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- > Harris DL, Gamble GD, Weston PJ, Harding JE. What happens to blood glucose concentrations after oral treatment for neonatal hypoglycemia?. *The Journal of pediatrics*. 2017 Nov 1;190:136-41.
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- > Weston PJ, Harris DL, Battin M, Brown J, Hegarty JE, Harding JE. Oral dextrose gel for the treatment of hypoglycaemia in newborn infants. *The Cochrane Library*. 2016 Jan 1.

### Document Ownership & History

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26/10/2022	V1.2	Domain Custodian, Clinical Governance, Safety and Quality	Addition of product concentration in g/g
7/12/2021	V1.1	Domain Custodian, Clinical Governance, Safety and Quality	Additional practice point for supplementary use where PGL <1.5
24/4/2018	V1	SA Maternal & Neonatal Clinical Network	Original SA Maternal & Neonatal Clinical Network approved version.

